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Greco-Phoenician diffusion

PRINTED IN SPAIN

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1430-1048 — BUENOS AIRES - ARGENTINA

1st EDITION 1982

THE DEPOSIT REQUIRED BY LAW 11,723 IS MADE
ISBN 950-021-003-7

LEGAL DEPOSIT: SS 64-1982

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Greco-Phoenician diffusion

TIPOGRAFICA PUBLISHER ARGENTINA
BUENOS AIRES
1982

AMERICA IN WORLD PREHISTORY

The origin in the ancient Mediterranean of the most developed American civilizations and their science, proven by the representation of America on Roman maps.

INTRODUCTION

In this work we propose to deal exclusively with the most developed civilizations.

American indigenous civilizations, and their origin in the old civilizations of the anti-Mediterranean

guo in the orientalizing era of Greece and Etru-ria. Naturally, the Phoenicians would have had a fundamental role in this, but the Greeks themselves are not excluded, nor are other contributions from or derived from the Persian Gulf region. Subsequently, the new contributions that arrived in America during the Hellenistic and Roman era were fundamental, as they provided the bases for the highest scientific development in indigenous civilizations.

Thus, the most developed civilizations of indigenous America that the Spanish conquerors encountered are based on influences that reached these lands thanks to transpacific navigation, in the middle of the last millennium before the Christian Era. That is, in the period commonly called upper archaic and also upper pre-classical, and which lasted from the indicated date until the time of Christ. Then the so-called Classical American Civilizations begin, which, after about 700 years have passed, give rise to a new type of civilizations called the Militaristic period.

As we will see in due course, a large number of American cultural elements appear for the first time in the middle of the last millennium before the Christian era; In a special way, metallurgy stands out, highly developed on the northern coast of Peru and in the

Ecuadorian coasts. At the same time, new forms appear in ceramics, many of which copy previous forms of metal, the most developed styles in architecture, features of social organization, and astronomical and calendrical knowledge. Regarding the latter, later Hellenistic and Roman contributions are observed, to which we must refer. What is important here is that numerous cultural elements from the middle of the last millennium before the Christian Era also appear somewhat earlier in the ancient Mediterranean, as well as in Assyria and later in Persia.

We will mention here, to begin, only three of them: the figure of the Gorgon, frequently represented on shields; painted ceramics comes up with mythological scenes; and the decorative motif in the form of waves or waves rolled over themselves. Many other features, such as sphinxes, griffins, animal friezes, etc., are earlier, but only then did they experience a new and great development or diffusion.

The Phoenicians of that time were the main disseminators of these artistic motifs in the Mediterranean, but in most cases they were not their creators.

Most of these cultural traits, especially the artistic ones, come from Urartu (present-day Armenia), a town that around 700 BC, began to intensively develop metallurgy again, after a long period of decline. general of civilization in earlier Asia. The trade in metal objects from Urartu easily reached Syria, and there the Phoenicians took their products and spread them, being copied in many places.

Possibly then, a similar trade

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headed from Urartu towards the Persian Gulf, but we have no further news about it, except for a series of survivals at the time of the Persian Empire.

in.

The Phoenicians, at least since the time of King Solomon, sailed through the Red Sea and reached India, Indochina and Indonesia. The Greeks soon followed, even before the founding of the commercial city of Naucra-tis in Egypt. The biremes, triremes and even

open with what most other authors maintain, we must present a whole new system of interpretation of the facts that must be subject to precise study rules.

As a starting point we could say that it is a new way of seeing ethnological and prehistoric facts.

The first ethnology was born diffusionist, through the work of authors such as P. Lafitau, who studied the Hurons of Canada, and Captain Cook and

THE MEXICAN “CHINAMPAS” IN INDIA. The chinampas or “floating gardens” of Lake Mé typical and exclusive feature of that region, but here we see them the same in Srinigar lake M. Alberto Tissandier based on data provided by MG Ermens. From: La Nature, 1881

absolute, and cannot be due to convergence.

Quinqueremes, of Phoenician and Corinthian origin, are used today in part of Indonesia. The chlamydes or Greek cloaks and the Corinthian-type war helmets reached Hawaii. Other Greek and Phoenician elements are found in abundance in America, as we will see.

Among the later inventions that reached America, we will mention only one here: the Roman balance, invented, or rather, perfected by Archimedes in Syracuse, which the Spanish conquerors found in use on the northern coast of Peru.

* * *

Naturally, to support what we affirm in this work, and which is in contradiction

his studies on the Polynesians. Both compared many of the facts they observed with those they knew about the oldest classical civilizations of the Mediterranean. But later, through the work of Montesquieu, Voltaire, and even, unintentionally, by JB Vico, and then Comte, Robertson, etc., in philosophical studies done by people who had never seen a native in its medium. In other words, it was assumed that human cultural development would have occurred in the same way everywhere, due to the similarity of mentality

human when faced with the same facts
natural for their survival.

We deny that. If it were true, the Yámana indigenous people of southern Tierra del Fuego should

having invented clothing similar to that of the Eskimos; Instead, they walked naked in a totally inhospitable climate, covered at most with a small fox skin.

In our view, we must begin by differentiating cultural traits into a series of very different facts. A first classification is the following: inventions, a feature in which something new is created that did not exist before; discoveries, where something already existing is found or discovered, and applications of knowledge, where known facts are brought together to solve something. Inventions naturally require a whole series of prior knowledge, without which they cannot be made. Simple discoveries generally do not require prior knowledge, since it is something that exists and is discovered, although they are necessary for its use, and, for the same reason, discoveries can be made more than once. Applications of knowledge are the most common feature of cultural events, and to carry them out, prior knowledge is required. If something new is produced in this application of knowledge, it is a true invention, not repeatable no matter how much the same knowledge is possessed.

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Almost all researchers of human culture, especially in ethnology, believe that

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The same inventions can be made many times in different times and places, without relation.

tion with each other; but in reality we are faced with a belief that has never been proven, and even impossible to prove. We have seen several small lists of alleged convergent inventions, but most of them are discoveries and applications of knowledge. The few true inventions that appear there are misinterpreted and are generally developments of an invention made before, even in idea, and that idea in itself constitutes the true and primary invention.

The result of what has been said is that a large number of cultural features that are supposed to be inventions of primitive or ethnological peoples are impoverishments or poor copies of more developed cultural facts, since those could not have existed without having those more antecedents. perfect. We will cite a single fact as an example: the historical Polynesians did not know metals (they did not exist on their islands, almost all of which were coral); Therefore, they should be considered as belonging to a Neolithic cultural period in their state of development; but they made stone axes whose shape copied previous ones made of copper and bronze, as well as wooden sabers with shapes of those made of bronze and iron. They were also unaware of ceramics, but many of their wooden vessels imitated ceramic and metal shapes; They were also unaware of weaving fabrics, but the bark fabrics reproduce previous drawings

“HUMINTAS” OR “TAMALES” IN CURRENT

BORNEO. According to H. Morrison, Sarawak, p. 60 (there are other figures with the same). North Borneo, among the Trusan moruts. With rice you make a food that is wrapped in leaves, in exactly the same shape as our humintas (tamales in Mexico), and that is how it is sold in the market.

Antonio Pigafetta already described this food in the Philippines, in 1520, when the first trip around the Globe, so it cannot be a colonial influence brought by the Spanish from Mexico. The leaves used appear to be banana or plantain leaves, but this does not prevent the identity of the incident. Convergence? We find the mere assumption of this laughable.

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THE JUDO IN ANCIENT EGYPT: Fresco paintings in the style of cartoons, found in Egyptian. They correspond to the Middle Kingdom, around 1800 BC, and represent fight scenes Japanese judo, although some details seem typical of Greco-Roman wrestling. Japan n of undoubted Egyptian origin, arrived in Japan much later by diffusion. of a work

L'Illustration, N° 4.488, 9 de marzo de 1929.

of fabrics into fabrics. In their social organization, they had theocratic kings and social classes, which did not exist in the Neolithic; Likewise, they counted in decimal form, which corresponds to the Bronze Age. In short, they lost much of their previous culture when they emigrated to

regions where this superior knowledge could not be applied. The necessary antecedents of the aforementioned axes, etc., sufficiently demonstrate this cultural descent.

Another case is a supposed convergent invention: porcelain. It was invented in China

long ago, and reinvented in Europe at the beginning of the 18th century. Both data are certain facts, but the European invention is not such: it is the local discovery made by a European ceramist of how the Chinese made porcelain; If I had not had the model to pursue, I would not have discovered anything.

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We enter another absolutely new topic in these investigations. In 1969 we were surprised to discover on a Roman map, the best known of all and reproduced hundreds of times in all kinds of publications (that of the romanized Egyptian Claudius Ptolemy, from 140-150 AD), the clear representation of the American Pacific coasts, from Mexico to half of Peru. Later, we discovered that Ptolemy himself had copied, altered

idol, the previous map of a Phoenician geographer, named Marinus of Tyre, where those coasts

HUMAN MAYA SCULPTURE WITH LARGE FELINICO-GORGONIC SHIELD. According to FJ Dockstader Kunst in America, volume II, lam. 80. From 500 to 750 CE. Height 71 cm. It is a warrior, with a ponchito and plugs in his nose. The large shield that presents in its lower part shows a feline-gorgonic face, of Persian origin and spread in Greece with the Orientalizing influence, as we say in another attached figure. The character also has an abundant beard here.

These were represented more clearly and realistically. A series of cities and geographical names were even indicated there, some of Persian and Sanskrit origin, and others that seem American. One of those cities, with a Persian name, was located exactly at its latitude and corresponds to Teotihuacán, in Mexico; another, with a Sanskrit name, was on the northern coast of Peru, well marked by the existence of three geographical points or capes.

Furthermore, Christopher Columbus knew and used these maps in his discovery of America, since he copied them and located his latest discoveries in northern South America and Central America in relation to them, as an extension of the Asian continent. There is also, in incomplete copies, a Javanese map obtained by the Portuguese when they conquered Malacca in 1511, where the American coasts are reproduced according to the distances indicated on the map of Marino de Tiro.

MAYAN VASE WITH A HUMAN CHARACTER WITH HORNS OF GOAT. According to FJ Dockstader Kunst in America, volume II, plate. 79. From Quirigua, Guatemala, from 750 to 1000 AD Height 39.4 cm. This is a warrior, as seen by the round shield in his left hand; but what matters are the extraordinary horns of a goat or goat that it displays, and which do not reproduce the shape of the horns of any American animal, while at the same time resembling the horns of the god Pan of Greece.

MONOLITHIC DOORS IN PERSEPOLIS AND TIAHUANACO. In Pierre Honoré's work, The Legend of development of a diffusionist thesis, with numerous errors but also with successes note the monolithic gates of Tiahuanaco with those of Persepolis (not all the gates of Perse seems obvious, all the more so when in the entire world they are the only monolithic doors ex

* * +

It is known to all that the calendar of the ancient Mayans was more perfect than ours, even with respect to one day in a dozen thousand years. That means millennia of studies as a necessary background. Even though it is a discovery, obviously,

Those antecedents are not found in indigenous America.

Around the second century BC. C., when Greek science merged with the previous Babylonian science, a very high development of science occurred there, especially in Mesopotamia and Alexandria.

MEXICAN FEMALE FIGURINES IN A HAMMOCK.
According to FJ Dockstader, Kunst in America, volume ll, lam. 67. Remojadas Culture, Veracruz, Mexico, according to the author from 300-900 AD, but they are several centuries earlier according to more recent studies. From the Cretan civilization we have a similar figure, although there it is a single figurine.

MAYAN SCULPTURE WITH BEARDED MAN AND GORGONIC SHIELD. According to FJ Dockstader, Kunst in America, volume ll, lam. 69. From Guaymil, Mexico, from 900 to 1200 AD. Height31.8 cm. The warrior's face is of a very European type, something confirmed by the beard he presents. In his left hand he has a large shield with a gorgonian human head. Shields with this gorgonic motif first appear in Luristan, Persia, and reach Greece and Etruria with the Orientalizing influence, at the end of the 8th century BC Again: Convergence? We do not know of the existence of these shields in the Andean zone. Photo authorized by William Rockhill Gallery-Atkins Museum-Kansas City-Mis-souri-(Nelson Fund).

astronomical. Three centuries later it had declined noticeably, and what we know today as Hellenistic science, particularly through Claudius Ptolemy, is the Alexandrian product of that decline. But this previous science had arrived, by transpacific route, to indigenous America, and was preserved there, at least in part.

The perfection of the Mayan calendar, which we all know, is a first example of this; but the main proof is found in the famous stone monument called the Aztec Calendar, of which we present here a new interpretation. Until now it has been assumed that its central human figure or face represents the Sun, which is erroneous: it represents

to the earth. In its contour the moon, the sun, the five planets and the sphere of the fixed stars rotate. In other words: it is representation. geocentricity of the Universe according to Hellenistic science.

The same happens with Inca astronomical science. It is generally assumed that it did not exist,

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THE ROMAN SYMBOL OF JUSTICE IN MEXICO? According to Eduardo Seler: Comments on the Borgia Codex, volume I, figs. 341 and 342. Seler tells us: “Tezcatlipoca-Ixquimilli, the blindfolded god, god of punitive justice.” The blindfolded eyes are clearly visible. If Seler's interpretation is true, it happens that in the Old World the representation of blindfolded justice is of Roman origin, and from there it comes to us.

It is completely missing in the other ancient cultures of the old continent.

MEXICAN PYRAMID MISSING. In Lord Kingsborough's work on American antiquities monumental volumes, illustrations such as the present corresponding to a pyre appear

Mexico, of which there is no news today, or is so destroyed that its shape has disappeared immediately recalls those of the Babylonian temples.

and that the Incas barely knew a rudimentary lunar calendar. The reality is that, as says the chronicler Huaman Poma, the Inca astronomical science measured at least astronomical minutes, and had the division of the circle and the year in 360°; the same as the science of the Mesoamerican peoples. The true Inca calendar was absolutely the same as the ancient one

Egypt, even with the late form of leap day counting every four years.

We come here to a last point of our work, although due to its importance it certainly does not occupy the last place. It is one of

the most difficult things to believe in principle. The transpacific relations of pre-Columbian America with the Old World were, above all, commercial exchange, in addition to some obvious migrations of peoples. In this commercial exchange, which lasted even at the time of the Spanish conquest, America unquestionably received many contributions from the developed historical cultures of the Old World; But he not only limited himself to receiving, but also gave. And what he said is what's really hard to believe.

We will limit ourselves here to a single point: Gothic art, one of whose main characteristics are trifoliate arches. Gothic art took these arches from earlier Romanesque art, which in turn took them from the Arabs of Spain, and these from Syrian architecture. It came to Syria from India, and to India from Indochina, from the Champa and Khmer civilizations. Well, at least a century before Indochina, the trifoliate arch appeared in the ruins of Palenque, from the old Mayan Empire.

It is clear that towards the middle of the first millennium of the era, an American cultural ebb reached Indochina, and from there it spread widely to Europe. The trifoliate arch is not the only cultural feature coming from that ebb; We will deal with the others later.

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An observation here about our illustrations: they are quite numerous, but we would have needed to provide more examples to fully present everything we say, so many of them are necessarily left for the second volume of this work. From among what was selected we have tried to expose the least known things, and we consider many others known, for example the Moche huaco-portraits, the Mayan and Indochinese pyramids so similar to each other, the Gothic and Romanesque arches, etc., things which are easy to find in any work that deals with these topics.

CHAPTER I

Transpacific relations and the cultural state of America towards the middle of the first millennium before the Christian Era, in relation to the Orientalizing period of the ancient Mediterranean.

1.—Comments on trans-pacific relations at the origin of indigenous civilizations, according to the current state of the problem.

Americanism emerged as a topic of study when the first Europeans were surprised by the discovery of the American man. Dis-

Since then, a multitude of works have been written, with as many theories, on the problem of American origins, both about their races and their cultures, their languages and their pre-history. The first authors, or chroniclers, who dealt with this topic, naturally influenced by the idea of human monogenism in the Bible, were diffusionists regarding the origin of the American man who, as a descendant of Adam, should have arrived here from the Old World. The supposed migrations would have been made through both the Pacific and the Atlantic, and almost all historical peoples

People from the Old World were pointed out, by some and others, as the original group of the American population. It was frequently pointed out two or three migrations from different towns.

Later this idea was rejected, and the autochtonism of the Americans was maintained, as an independent creation, because if God had made flies in the Old and the New World, He could also have made men in both regions. With respect to the physical part, that is, the indigenous race or races, this thesis could soon be rejected, since no primitive human forms appeared in the new continent; but it remained with respect to the developed indigenous culture or cultures, and is the main interpretation existing today. The doctrine that results from this, as the French researcher Ten Kate said more than half a century ago, is

a kind of "Monroe Doctrine" applied to Americanism.

But most of those who support this criterion deal little with the major problems of Americanism, and generally content themselves with dealing extensively with mini-problems of local indigenous cultures. Most of the existing study material on American studies consists of descriptions of the facts studied, whether excavations, the culture of current people, their languages, their race or races, etc. This has not been our path, despite the twenty years of archaeological study that we have carried out in Bolivia.

Our work throughout this investigation has been fundamentally to bring together and organize in a coherent manner a multitude of facts already widely known, but which, for reasons coming from arbitrary ideas about an impossible in situ development of indigenous cultures, had not been done previously.

We can exemplify the case with a quote

by the American researcher C. Kluckhohn:

**... Darwin's contribution to science was not so much the accumulation of new knowledge as the creation of a theory that put in order the data that was already known. An accumulation of facts, no matter how large, is not a science, in the same way that a pile of bricks is not a house…"
(Kluckhohn, Anthropology, p. 30).

We believe we have managed to partially build a house with the pile of bricks we found at the beginning of our journey.

investigations, but we recognize that even not laying a firm foundation for them, as we believe,

It is finished, since it is missing the paint, the plaster - we will be largely satisfied.

that and possibly the doors and windows, and We return to the fundamental issue of our perhaps also the roof. But we have con- study. The first origin of the population
guide to raise its walls somewhat, and above all Ricana via the Bering Strait was not

Map of American cultural areas: the AN f}
Two centers of great civilization (areas in n, a ~ \ black): roo > Sa \ A -
Mesoamerican. to

B - Area Andina.

Spheres of influence and cultural areas

satellites (shaded areas):

C - Sister.

D - Eastern Woodlands.

E - The Isthmus.

F - The Antilles.

G - Northern Andes.

H - Tropical Rainforests.

! - Southern Andes.

Independent cultures highly developed artistically: J - Northwest Coast.

K - The Arctic [Eskimo area).

Marginal cultures:

L - Northern Woodlands.

M - The Prairies.

N - The Wild West. and O - Paraná Basin. EN P - The Pampas and Tierra del Fuego. È {Arrows indicate the probable route of cultural currents),

MAP OF AMERICAN CULTURAL AREAS, according to M. Covarrubias. The Eagle, the Jaguar and the S Dadaist. In white the most primitive areas, in gray the medium cultures and in black the high ones. We know about the American past. Observe the difference with Imbe in high cultures Volume III where it places the highest indigenous culture in the racial territory of the Itsmi place with a less developed intermediate area.

It is already disputed, although its age is. Currently the fundamental problem is the origin of the most developed cultures that the conquerors found here. More concrete-

mind:

What has been discussed the most until now, although not clearly, is what refers to the origin of the people of America with a more developed culture or, rather, of a series of cultural elements equal to those They appear in ancient civilizations of the Old World.

In short, the problem is the following! is

THE PACHISI GAME in Mexico,

according to an Aztec Codex. In India today I play a
similar game, and a direct derivation of it is our game
called Ludo, which has the four colors of the points
on the horizon.

A century ago the English researcher

Tylor compared the Mexican and Indian games
down to the last details, concluding that they were
inevitably related, deriving the Mexican form from
India. Does not about

of just a game, but of a cosmic representation
of the Universe.
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THE GAME OF “PATOLLI” (MEXICO) AND “PACHISI" (INDIA). Taken from GF Carter, Man and the Land, p. 112. (The American Museum of Natural History). The game may be of Persian origin. It has a cosmic meaning, which is the same in India and Mexico. Its current survival among us is the well-known game of Ludo, which has acquired the shape of a swastika, but which has preserved the four cardinal colors of the points on the horizon. Already a century ago, the English researcher E. Taylor compared these games, and directly assumed the Hindu origin of the Mexican form.

accepted today by almost all authors, that the first settlement of America was due to a emigration from Siberia through the Bering Strait; Those first emigrants would have a culture corresponding to the beginnings of the Upper Paleolithic of Europe.

But we say, and in the last volume of this work we will discuss it, that the primitive American population and the culture they brought corresponded to the beginnings of the Middle Paleolithic, that is, a very primitive Mousterian.

In America, inventions made later appear, some of which correspond

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Borgia Codex, according to Seler, plate 72. Representation of the four directions of the Universe, or gods, which otherwise vary in the other Codices: also their position with respect to the wheels, which are seen in front of the four figures of gods. Quetzalcoatl is to the East, and has North, characterized by a multicolored snake; Xiuncoatl to the West with a blue snake "malinali" colored snake. This according to Seler, other authors differ in the interpretation

referring not only to the Iron Age, but also to full Hellenistic history; such as _ for example the Roman scale and the leap count in calendars. Naturally, these could not arrive with that original population, nor later by the same route, since they did not exist in Siberia. Let's give other examples: the writing hieroglyphic architecture of the Mayans and Aztecs, the columns in buildings, the pyramids, papyrus, incorrectly called paper, in use in Mesoamerica, metallurgy, metallic imitation ceramics (never mentioned), etc. All of this, according to the interpretation of the "Monroe doctrine", must be understood as convergent polygenist invention on our continent, while the inventions that may have come via Bering are generally admitted.

given as a monogenetic invention, since its details are related to those of similar objects from European and Asian Siberian prehistory.

The only possible interpretation, in the event that one wants to postulate the monogenetic thesis of the aforementioned inventions, which appear in the most developed indigenous America, is that these elements have come to these lands at a later time, with new migrations or relationships. trade, which have not been able to pass through the Bering Strait.

The critical discussion of this has long ago defined the problem in the sense that, if these subsequent relationships have existed, the only possible route is the maritime route through the

THE FUNDAMENTAL INVENTIONS OF CIVILIZATION: CONVERT

GENCE?

In V. Gordon Childe's work, La Naissance de la Civilisation, chap. IX, we find an important list of the basic inventions that allowed the appearance and development of civilization, and at the same time four other important later ones. Let's see what

What does that author tell us:

"Before the urban revolution, illiterate and relatively poor communities had provided an impressive series of contributions to the progress of humankind. The two millennia that preceded 3,000 BC. C., had witnessed discoveries in applied sciences, whose direct or otherwise repercussions on the well-being nesting of millions of human beings, were considerable; These discoveries had a spectacular effect on the biological prosperity of our species, facilitating its multiplication. Let us remember the inventions studied so far: artificial irrigation with the help of canals and ditches; plow; exploitation of animal energy; Sailing; rolling vehicle; selective arboriculture; beverage fermentation; production and use of copper; fired brick; vault; earthenware (or: porcelain); seals and—in the early stages of the revolution—solar calendar, writing, numerical notation, production and use of bronze."

"The two millennia after the revolution, from approximately 2,600 to 600 BC. C., they only recorded, in comparison, rather meager contributions to the pace of progress. Only four innovations have merit to appear in the same category as the 15 that appear here: the decimal notation of the Babylonians (around -2,000); the discovery of an economical method of smelting iron on an industrial scale (—1,400); fully alphabetic writing (—1,300); the construction of aqueducts that provided cities with running water (—700)." (Page 226.)

**... The oldest example of an aqueduct discovered so far, was built for its capital, by Sennacherib, king of Assyria (704-681 BC)..."" (Page 227.)

Of the 15 basic inventions cited, only two are completely missing in pre-Columbian America; the plow and rolling vehicles; Of the four later ones there are two: the decimal notation that exists in perfect form in the Peruvian quipus, and the aqueducts that are found in both Mesoamerica and the Andean region. In this regard, it is enough to remember the two great aqueducts that provided permanent water to the city.

city of: Tenochtitlán.

Can it be logically assumed that such a concordance of the same inventions is a product of convergence? Furthermore, it is evident from this list that the transpacific relations were not one but multiple, as demonstrated by the later arrival of the knowledge necessary for the manufacture of aqueducts.

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THE CLAIMED “ANCIENT ART OF THE PACIFIC” IN PERSIA.

Drawing taken from a piece contained in R. Ghirshman; lower part of a gold plate from the Ziwiye hoard, Scythian (?) showing two lions whose bodies are united into a single head; The second piece is a pin or disc brooch whose upper part shows two lions with their heads cast; Below a motif of Greek origin showing two birds fused into a single gorgonian head. The detail of the fusion of the two heads, etc., was presented by Dr. R. Heine-Geldern as belonging to an Ancient Art of the Pacific, around 3,000 BC, but it was found even earlier in ancient Elám. In America, the English Columbia appears especially, and also somewhat in Mesoamerica and the Andean zone.

Pacific Ocean, and very secondarily across the Atlantic. Not just one, but even several peoples and cultural traits, at different times, would have had to arrive by sailing that route. In this case, if this is true, the thesis of the monogenism of inventions could be widely applied to a multitude of other elements, not only those mentioned, even though this has never been presented with sufficient clarity.

Particularly notable is the criticism that can be made of the polygenist interpretation, applying it to the origin of high American cultures, since everything that has been done up to now with this interpretation does not rest but

of independent origin, is the following: if that trait exists in pre-Columbian America, and is not

It is possible to maintain that it has passed through Bering, it is proven that it originated here independently, however complex it may be, and although its necessary antecedents do not exist in the continent.

nent.

The current state of the results of these investigations and interpretations offers us two different lines. The first advocates or maintains a unique origin in Siberia, with passage to America through Bering, and the subsequent independent development of indigenous civilizations.

The second accepts this first origin by Bering, but denies independent development, and in its place places a series of transpacific influences that bring to our continent the most developed culture of the Old World.

An important clarification is necessary here: the supporters of the second interpretation that we have just expressed are generally called diffusionists, but under this name two very different types of interpretations and researchers are hidden. Most of them are what we will call shy diffusionists, and they are characterized by not being monogenists.

THE PRETENDED ANCIENT ART OF THE PACIFIC IN CAJAMARCA, PERU. According to Solón Urteaga Portocarre
on "The Caxamarca Marañón Culture", lam. 7. Drawing on ceramics made with kaolin, proceeds
Cajamarca. The head is feline and on both sides the same figure is displayed, as in the Geldern, which is before or at least
contemporaneously in Elám. Similar Asian figures, in Greece in the Orientalizing period, in English Columbia, etc.

on previous ideas, without any basis of study. There is no criterion, no rule of study, that allows us to demonstrate that an invention, an element, existing in two or more different peoples, has been made independently in both places. On the other hand, the existing rules to demonstrate the relationship of two or more elements are numerous, and in part they are very refined, precisely due to the criticisms that have been made of them.

We can summarize the problem by stating that, for polygenists, the only existing rule to demonstrate whether an invention is or not

regarding the origin of the inventions; They compare, for example, cultural traits existing in Oceania, China and India, with other similar ones that appear in indigenous America.

But if those same features exist in today's black Africa or in prehistoric Europe, they do not. They relate, and often declare them directly, of independent origin. In other words, their diffusionism is partial, referring to a few cultural traits that have caught their attention. Very different are the ultra-diffusionists, we will call them and call ourselves that, who compare all the cultural inventions of the world while maintaining their unique origin.

The polygenist interpretive school, we will call it that, is the one that, since it was established, has had the advantage in the existing controversial confrontation, due to its totalitarian and intransigent position, which more than a scientific one seems like a cosmic religious conception, on the origin of human culture. I spread them

ception, and for this reason they have only tried to modify some details and not change it basically, as is indispensable and scientifically necessary.

In the recent and current state of the discussion of this problem, we are presented with the following: since the second half of the last century, they have

timid Zionists participate in the same con- existed a series of researchers who have

“UNFOLDED” FIGURE OF THE ENGLISH COLUMBIA. According to F. Boas. It represents a dog-fish, species the Indians of the Haida tribe, from the Queen Charlotte Islands. This type of representation corresponds to what he interprets as the “Ancient Pacific Style”, of about 3,000 years since many centuries before the same existed in ancient Elam, and therefore is or South Asia, to Indonesia and the Pacific, and later to America.

THE PRETENDED “ART OF THE PACIFIC” IN GREECE. Dr. Heine-Geldern postulated the existence of characterized, among other things, by the presence of the representation of animals “from

which would have influenced pre-Columbian America. Actually that artistic style appeared much to the Art of the Eurasian Steppes. It arrived in Greece in the Eastern period.
A drawing taken from a Greek pottery from the 7th century BC, existing in the British Museum, shows two animals united in a single head. The shape of this ceramics appears in the c

compared American cultural traits with others from the Old World, supporting its arrival in America through the transpacific sea route.
Making those comparisons with a whole series of scientific rules; We can begin here by quoting Tylor, who compared a game from India called pachisi there, with another from Mexico called patolli. This is played with a board similar to that of our ludo and at the same time has a cosmic significance. Down to the smallest details, the game is the same in both countries mentioned.

Other authors have been F. Ratzel, Leo Fro-benius, Nordenskióld, Elliot Smith, Paul Rivet, J. Imbelloni, S. Canals Frau, F. Graebner, Kir-choff, R. Heine-Geldern, P. Bosch-Gimpera, g.

Carter, Alcina Franch, GF Eckholm, etc. For us, all of them, except Elliot Smith (monogenist although with disparate concepts), have been or are timid diffusionists, since they have not supported the monogenism of the cultural traits they discussed, with the exception of G. Carter .

Possibly the most important of the authors cited is Baron R. Heine-Geldern, who has numerous followers, among whom we can mention Herbert Kúhn, Miguel Cova-rrubias, P. Bosch-Gimpera and Osvaldo Menghin.

All of them have to be classified as shy diffusionists according to our interpretation.

The polygenist authors, belonging to the North American school, have built a wall over the Pacific, saying: “nothing has happened here.” The timid diffusionists have not removed that wall, as was necessary, but have moved it to the ocean

I indicate, from where they repeat: "it didn't happen here nothing". Thus, Heine-Geldern, Imbelloni, etc., forget and even deny all the historical relations of the Greek and Roman era of the ancient Mediterranean with Indochina and Indonesia. This maintenance of the wall over the Indian Ocean is another of the fundamental characteristics of the timid diffusionists.

Comparisons are made with existing cultural traits in Oceania, China and India, but not with more distant ones. Heine-Geldern postulates, regarding the period that concerns us in this work, the existence of Chinese influences from the Wu and Yúeh kingdoms (originally Chinese, later they were Chineseized), especially on Peru around 700 BC. C. They would follow them towards the 4th century BC. C., influences of the Dong-son culture of Tonkin. Finally there would be influences of Hindu origin, from the Hinduized kingdoms of 'Indonesia, which would begin around the second century or III of the Era and would last until the 12th century. Chinese and Dongsonian influences would bring metallurgy to the Andean region.

We quote one of Heine-Geldern's followers, who summarizes his entire interpretation regarding transpacific migrations and influences in America. This is the Mexican artist and researcher Miguel Cova-rrubias: .

The chronological differences between the primitive Chinese cultures and those of America, the latter generally considered to be of later development, and the absence of Asian objects in the American continent, undermine any attempt to correlate the evident similarities between one and the other. Heine-Geldern dealt with this thorny problem adequately and scientifically, by analyzing the basic components.

CERAMICS FROM COCHABAMBA, Bolivia, found by the author, showing the first painted pieces that appear in the area. First, a double glass from the Tupuraya culture, from the time of Christ or shortly after, similar to pieces from the Peruvian coast in its shape. It is the second culture with painted ceramics that appears in the Valleys of Bolivia. Second, a jug from the Sauces culture, corresponding to the first painted ceramics in Bolivia, prior to the Era, but the piece presented corresponds to a later impoverished form. These two cultures spread to the South, to NW Argentina and central Chile.

cos of Asian cultures and their natural expansion through Malaysia and the South Pacific, and by establishing a chronological framework within which the dissemination of said influences must have occurred. He first postulated the existence of a basic prehistoric culture, probably aboriginal to East Asia around the third millennium BC. C., or perhaps even earlier, which he called "ancient Pacific style." He believes that this served as the basis for the great cultures of pre-Buddhist China (Shang and Chou), spreading through the islands of Malaysia and the Pacific until reaching the coasts of America. Its most characteristic feature is the sculpture, mainly in wood, whose characteristic, in turn, is the combination of human and animal figures, generally in series, with genealogical, heraldic or mythological meaning, arranged in vertical columns and placed on top of each other. Another feature of the "ancient Pacific style" is to represent figures in bas-reliefs, paintings or textiles as if they were divided in two and each half then extended, identical to each other, over the entire surface. This style survives

in its purest forms among the coastal tribes of southern Alaska and British Columbia, in New Ireland, in parts of New Guinea, and among the Filipino Igorots, the Dyaks of Borneo, and the Bataks of Sumatra.

"Around the year 1800 BC. C. the "old Pacific style" was combined in China with the "Dniester-Danubian" style of southeastern Russia, Transylvania, Hungary, Romania and the northern Balkans, characterized by its spiral motifs and its technique. -used bronze casting, to produce the great art of the Shang dynasty and later Chou periods, as well as the Dongson style of Indochina. The influence of these cultures spread everywhere in Malaysia and the Pacific, finally reaching the coasts of America and producing, in turn, numerous local styles that still survive on the islands of the seas of the

South, and even in places such as the northwest coast of America and the Amazon basin. In this way, Heine-Geldern believes that Chinese influences reached America at different times and from various sources, with the South Sea islands being the most important conduit; for example: the style of the Amazon and Ucayali rivers is often almost identical to that of the Marquesas Islands, which, in turn, is a

offspring of Chinese art from the Shang era, suggesting that it reached America through the Marquesas Islands. Heine-Geldern (1937) has collected extensive evidence of strong cultural influences spreading from southern or central China between the fifth and third centuries BC. c.

This would explain the extraordinary similarity between the Tajín and Ulúa styles of Mesoamerica, and the Chou art of later times, which could have arrived by indirect means and in stages, driven by the collapse of the Chou dynasty" (Covarrubias, M. , The Eagle, the Jaguar and the Serpent, pp. 32-33).

The author, Covarrubias, summarizes in a graph explanatory Heine-Geldern theories, which

we reproduce, the same as other illustrations of his.

The “old Pacific style” is of interest, especially in its second
characteristic, that is, the representation of the figures as if they were
divided in two, meaning

AN ASSYRIAN ORNAMENT MOTIQUE IN SHELL ORNAMENTS

CUPISNIQUE, CHAVIN. According to R. Larco Hoyle, Los Cupisniques, p. 17. They are
shell pendants with feline motifs, what matters is the presence of the crisscrossed rope motif,
which as far as we know is of Assyrian origin and was widely spread by the Phoenicians. In
America it is highly developed in the Teotihuacán civilization.

DNISTERIAN DANUBIAN STYLE OLD PACIFIC STYLE

Bronze Age style of southern Russia, represented by totem poles, spiral motifs and casts of bilateral representations (perhaps
by fi-bronze: it arrived in China probably some- squat).

around the year 1800 BC. of C.

ESTILO SHANG

Early Bronze Age in
Northern China, 1700 -

1100 BC

PRIMITIVE CHOU STYLE

Result of the amalgamation of the Shang
style and local elements of Western
China,

1100 - 750 BC

LATEST CHOU STYLE

Primitive Chou style with ele-

mentos posteriores danubia-

Nos and Caucasians, 750 - 200 BC. of C.

ESTILO DONGSON

Bronze Age Southeast Asia with local styles from
Indochina, 750 BC. from C. - 100 d. of C.

Influences widely spread throughout Malaysia, Melanesia and Polynesia that reach the Americas through various channels and at different times. Examples:

Batak from Sumatra. To- Dyak of Borneo, Massim of the |

Famous Radja, A- Eastern New Guinea, Ngada, Marquesas Islands

lor, Tinambar wash the flowers; Maori from New Zealand

Western South America Tajin de Vis Style Art of the northwestern coast-Ulua Style, of Honduras.
dental, bead style

ca of the Amazon, Cradle of Panama
style, etc.

EXPLANATORY GRAPH OF HEINE-GELDERN THEORIES, according to M. Covarrubias, El Aguila, el J
us, the same first two starting points (above) are wrong: the Dnié Style
said, which do appear in the China of the Shang and which seem to us to be of an Egyptian type with reca
shao is long before that style in China. For the Old Pacific Style, the representations
appear in Elam, etc.

each side its halves, generally joined in the center by the face. Around the same time indicated by Heine-Geldern, this same motif has similar forms on some Elamite pottery and on ancient Luristan bronzes. From Luristan this motif spread to all the great Eurasian pastoral peoples, especially the Indo-Europeans, certainly not missing in Greece. We then have the problem of whether the “old Pacific style” was a Southeast Asian influence on

Elám, or, on the contrary, a very ancient Elamite influence there. In any case, as a consequence of this, the wall of the Indian Ocean is already raised by that date.

As for the “Dniester-Danubian style”, which he refers to in his comparisons with the Yang-shao spiral pottery, it happens that the age currently determined for Yang-Shao, obtained by the C-14 method, reaches up to 4,115 + 110 years before the era. This supposedly original Dniester-Danubian style is, in its origin, after that date.

For us, Yang-Shao ceramics arrived in China by sea from Indochina; The relationship exists but it is not that of the Eurasian steppes.

CERAMICS FROM THE TUPURAYA CULTURE OF COCHABAMBA, Bolivia. Author's findings. Painted in black and red-purple on a white or yellowish background, even light gray. Its main characteristic is the two colors of paint placed in opposition and the comb-shaped teeth that emerge from them. It is one of the basic types of decoration in American ceramics, as it appears from the Pueblo Indians of the United States to NW Argentina. It is the second culture with painted ceramics in Bolivia in which tripod plates and double glasses appear,

2.—Three recent authors who deal with transpacific relations at the origin of indigenous civilizations.

We will now deal with three recent authors who have presented important works on transpacific cultural relations.

The latter in relation to the Peruvian coast and the former with Mesoamerica.

ficas. They are not the only ones, nor do we assume that they are the most important, but they are simply the ones we have most at hand. Another important author is Dr. George F. Carter, of whom we reproduce

AN OPINION FROM LEVI-STRAUSS:

NOTE 9, on page. 224 of Structural Anthropology:

“In his book Medieval American Art, New York, 1943, Dr. Pal Kelemen, who estimates that the similarities between American arts and some of the arts of the highest civilizations of the Eastern Hemisphere are nothing more than “optical illusions” (vol. I, page 377), justifies this opinion by writing: “Pre-Columbian art was created and developed by a mentality totally foreign to ours” (id., p. 378). I doubt that in all the work of the diffusionist school one can find a single statement that is so completely gratuitous, superficial and devoid of meaning.

Lévi-Strauss is certainly not a diffusionist, on the contrary, in the neighboring pages he directs strong criticisms of diffusionism; But we see in the quote that anti-diffusionists incur such absolutely arbitrary and superficial interpretations, contrary to all biological and psychological knowledge, that it truly seems impossible that the quoted phrase could have been written seriously. Think about what "a mentality totally foreign to ours" means, it would simply indicate that the American man would constitute another human species different from Homo sapiens.

We see some illustrations and which, in part, also follows Heine-Geldern.

The three authors we have chosen to summarize here are K. Dittmer, Osvaldo Men-ghin and Betty Meggers, whom we will mention successively. The second of them, as we already said, follows the ideas of Heine-Geldern.

Dittmer, in his work General Ethnology, pp. 209-33, deals with “the agricultural cultures of America and their relations with the Old World.” He assumes that these are a detachment from his Megalithic Cultural Cycle, from which all the great civilizations of the Old World derive. The era that this transpacific relationship represents is prior to what we discuss in this work, but we believe it is appropriate to cite it for what is transcribed below:

“Between the agricultural cultures of the Old and the New World there is a large number of coincidences in all fields of material and spiritual culture that, with some

Some exceptions cannot be explained as convergent phenomena. Historical-cultural relationships between most of these parallel lines of the New and Old World are very probable, and in some cases even certain. It is characteristic that cultural manifestations occur in America almost always

POLYCHROMOUS CERAMICS FROM THE MOYOCOYA CULTURE, COCHABAMBA AND CHUQUISACA, Bolivia.

Jug and tripod plate, the latter very similar to Mesoamerican pieces. Third culture with ceramics

guinea fowl that appears in the Valleys of Bolivia, from where it spreads to NW Argentina and Chile. First appearance of the spirals, in Bolivia, always in red-black opposition, on a yellowish-ocher background. It is a little after Christ.

suddenly, without preliminary phases or stages of prior development (existing of course in the Old World) and, sometimes, even as descendants, alterations or interpretations of the phenomena of the Old World..."

“The development of cultures in this (the Old World) can be shown graphically as a constantly rising curve.

dent, while in America evolution goes in leaps, so its graphic representation would be an ascending broken line, but lower than the curve described” (Ob. cit., pp. 210-11).

“If we summarize the results of our study of indigenous agriculture, we find that it is characterized by the cultivation of the same families—and in part even the same species—of useful plants and by the same cultivation methods and instruments. than the agriculture of the megalithic circle of the Old World. But the similarities extend to many other elements of material and spiritual culture, among which we can mention as typical examples: fishing with trained birds (Peru, East Asia); weaving system with gauze and ribbons wood (from the Pueblo to the Aruak and Araucanians) and techniques identical to those of the

THREE CERAMICS FROM THE YAMPARA CULTURE OF COCHABAMBA AND CHUQUISACA. Photo by the author. This culture is formed by the fusion of the first four cultures with painted ceramics that appear in the Valleys of Bolivia and which the Tiahuanaco conquest did not reach; It first emerged in Chuquisaca, at the end of the first millennium AD, and spread throughout the east of Cochabamba. It lasts until the Spanish conquest, although it was dominated by the Inca expansion. The little jug with two handles shows a black glazed paint, which appears with the first painted ceramics of the Valleys.

The old world; dyes based on cochineals and murices (Meso and South America); dyeing techniques: ikat (Mexico, Peru), batik, and plangi (Peru); the poncho (Pueblo, Mexico, Andes, Amazon region); dress made of a canvas held by fibulas (An-des); bark canvas (Mound culture to South America), which probably marked the beginning of papermaking (Mexico); clay or wooden seals for body painting (Meso and South America), rope pottery from southeastern Europe and Japanese Neolithic; tattoo (Mound culture to South America); construction methods and megalithic monuments, including the typical squatting figures holding a vessel (archaic cultures of South and Mesoamerica to their Nordic regions of irradiation); raw bricks dried in the sun (adobes), as substitutes for stones (Pueblo, Mexico, Peru), although the previous phase of mud construction, known in the Old World, is missing here” (OD. cit., page 221) .

“A considerable difference between both forms of the megalithic cultural circle

It is that domesticated bovines are lacking in America, and therefore also their use in worship and their representation in art. This is explained by the circumstance that they could not be transported across the Pacific in simple boats…" (Id., page 225).

"We will now have to examine whether a transplantation of agricultural cultures from the Old World to America was technically possible. Of course, the hypothesis that it has spread over land through the Bering Strait is excluded, since this

TWO PIECES OF CULTURE CERAMIC MOJOCOYA, Cochabamba, Bolivia; author's findings in the province of Mizque, Cochabamba. The first tripod plate has its greatest similarities in Mesoamerica, and its three flat legs, made of metallic copy, typical of the aforementioned culture, are characteristic. The pitcher or jug, like the previous piece, has the first polychrome paintings with spirals that appear in Bolivian archeology, and that extend to NW Argentina.

The region already represented an arctic climate at that time. Therefore, one can only think of the sea route, which was facilitated by the Kuro-Shio current - which is formed between the Philippines and Japan and flows into the Californian coast - with wind in a westerly direction; thanks to the equatorial countercurrent, which goes from Indonesia to Micronesia to Mesoamerica, and finally thanks to the western direction of the wind and the sea current that, from the center of Polynesia and New Zealand; It reaches Chile and Peru. The monsoons did not offer too great obstacles, since the inhabitants of the Pacific islands knew how to sail against the wind..." (Id., pp. 228-29).

EXTRAORDINARY NAZCA CERAMICS, modeled in the shape of the stepped and spiraled sign in fretwork, with a double neck and flat metal handle, in Yoshitaro Amano, Pre-Columbian Huacos del Perú, Lima 1961. The complex drawings it presents, polychrome, are made in style F.

“To determine the approximate historical moments of the supposed immigrations we will start from the data provided by the Carbon 14 dating method, according to which the beginning of the archaic agricultural cultures of Meso and South America is Found in the middle of the second millennium BC. C., and their peak periods, in the first half of the first millennium AD. c.

The main merit lies in the fact that—unlike Heine-Geldern—he managed to raise the barrier of the Indian Ocean wall, which is a lot. Its main defect is that in its passage towards America it has not attempted to make a temporal classification of the cultural events it deals with.

We move on to our second author, Osvaldo P. Menghin, a disciple of Heine-Geldern in his interpretation, whom he expands on. His main

NAZCA CERAMICS with human representations, of men equipped with javelins and stolics Pre-Columbians of Peru, Lima, 1961. The human representation is extraordinarily natural

The first high culture is that of the Mayans of Mesoamerica, whose so-called “first empire” flourished more or less from 300 to 900 AD. C. (the first dated stele comes from the year 162 AD). By the year 300 BC. C. coastal cultures began in Peru, which does not coincide with the dating carried out until now by archaeologists, who assumed they began a few centuries later..." (Id. pp. 231-32). -

The author deals with many other American cultural elements related to the Megalithic culture of the Old World, but we only wanted to present one example. In any case, although briefly, we will make a comment: its main

work on the matter was published in 1967 and was titled worm According to this author, oceanic migrations would begin around 3,000 BC. C., and would last until 1,000 after the Era. He distinguishes three successive phases in them; The first would begin in 3,000 BC. C., and it would be Neolithic; Their ethnographic survivals would be found in the Amazon. We will not deal with it, since it is much earlier than the period that interests us in this work.

The second migration would be the following:

“If we now contemplate the second era... From Chinese historical sources, we know-

31

32

We know that around 800 years BC. C. Violent fights were fought on the western borders of the country, caused by a migration of peoples that erupted from the northern area of the Black Sea and the surrounding countries, especially the Caucasus. Its bearers belonged to very different ethnic entities, including Indo-Europeans.

...In the year 771 BC. C., one of these people conquered the western residence of the Chou kingdom and occupied the area. The result was the influx of many cultural elements

coming from the Caucasus and Eastern Europe, which was not limited to the regions of the Hoangho and Yangtse-kiang, but penetrated - and with great force - into southern China.

dional and northern Indochina. In the northern part of Indochina it was formed, around 500 BC. C., a great culture whose name was taken from an important site in northern Annan, called Dongson. This culture in turn influenced over southern Indochina, Indonesia and Melanesia “:

“It is of great interest for all of our exhibitions, that in the time between 700 BC. C. until 200 d. C. in the entire strip of territory located between Peru and Mexico there existed a series of industrial products of astonishing resemblance to Caucasian and Eastern European forms... the influences and suggestions came first

“CONVERGING” INVENTIONS AND BIOLOGY, ACCORDING TO KROEBER

In the work General Anthropology by AL Kroeber, p. 251, we find some paragraphs of important comments, with which we completely agree. We transcribe them. The underlines are ours:

“115. Limitations of the principle of parallelism ":

'From the evidence reviewed in this chapter and the previous one, the conclusion reached by social philosophers for a long time is confirmed, namely that imitation is the normal process by which men live, and that Invention is rare, something to which societies and individuals oppose more resistance than they realize and which probably occurs only as a result of the pressure of special circumstances, although as yet little understood. Not only are there a hundred examples of diffusion historically traceable to one of parallelism, but the latter is usually of limited scope. Something tends to make us see more parallel phenomena than exist. They simply arise from the same impulse, they participate in the properties of objects or nature, they only resemble each other up to a certain point, and they differ completely in other ways. But they tend to impress us, in some mysterious way, until they seem identical. The history of civilization has not produced two similar cultures, or two identical cultural traits developed separately, just as the evolution of organic life has in no case duplicated a species by convergently modifying two different forms. A whale may look like a fish, but it is a mammal. The Hindu zero and the Mayan are logically the same thing, but in reality they have nothing in common, except their abstract value: their forms, the place they occupy in their respective systems, are different. Therefore, the most frequent process in the history of culture is that of tradition or diffusion over time.

and in space, which roughly corresponds to hereditary transmission in the field of organic life. Inventions can be compared to organic mutations, those “spontaneous” variations that arise from time to time and are fixed by themselves. The particular causes of both inventions and mutations remain unknown. From time to time a mutation or an invention heads in the same direction as another that emerged previously. But, since they spring from different backgrounds, such convergences never achieve identity. They remain at the level of analogous similarity. A substantial identity, a correspondence from part to part, is invariably a sign of community of origin, both in cultural and organic history”:

We highlight the fact that the author compares inventions with mutations, as we do. And once that comparison is made, it is impossible to admit convergent inventions.

CERAMICS OF THE MOJOCOYA CULTURE, from Cochabamba and Chuquisaca, Bolivia, polychrome, colors usually black and red-purple on a yellowish ocher. First appearance of spiral drawings in Bolivian archeology, along with the stepped ones, which already existed before. The central piece, tripod, bears a striking resemblance in its drawing and colors (although the drawing is inverted) to similar tripod pieces from Michoacán, in western Mexico. This culture, in terms of its artistic motifs, is widely spread throughout NW Argentina and even penetrates into central Chile. It is the third culture with painted ceramics that appears in the Valleys of Bolivia.

of the political entities that flourished on the coasts of southern China. After its destruction, the Dongson culture was the source of these currents that fertilized America in the most varied ways..."

“The oldest South American high culture that deserves this name is that of Chavín in Peru, which was already flourishing around 700 BC. C. and had an expressly hierarchical-religious character... very complicated ornaments that observers

non-specialists would simply qualify as -

of Chinese origin... We also encounter similar phenomena in Mexico in the last phase of preclassical culture, that is, in the second half of the last millennium BC. C...."'

“The number of instruments, weapons and objects of clothing and technical inventions common to the cultures of Dongson and Peru is notable... the metallurgical technique... the decoration of the teeth through inlays.

not of gold..."

“The transfer of all these assets is not

explainable as some claim, by merely fortuitous landings
from

ships thrown ashore, but for the existence of fairly solid, and perhaps regular, marine connections. One can think of a class

of Vikings or daring merchants who presumably already at that time knew of the gold wealth of South America and exploited it in any way. It is not impossible that certain groups stayed in the country and appropriated power... In this group, the American calendar systems deserve special mention, which, despite their complexity, coincide in an astonishing way with those of Chi -na and Indonesia..." (Ob. cit., pp. 90-93.)

The influence of the Indian Ocean Wall theory is clearly recognized.
It is pointed out-

There are abundant cultural elements of Eastern European origin in America, but they are first made to pass through China, where they would arrive by land, when there was already a developed South Asian navigation. In addition, an age limit is set, set by that invasion of Indo-European pastoral peoples.

POLYCHROMOUS CERAMICS FROM THE NAZCOID CULTURE OF THE

VALLEYS OF BOLIVIA, findings by the author. Its polychromy is only surpassed by that of the Nazca culture of the Peruvian coast, but it also has features of Paracas and Recuay survival. It is the fourth culture with painted ceramics to penetrate Bolivia, coming from Peru. Its derivations reach the Argentine NW, in the Draconian culture.

ERIN

IS

on China, in 771 BC. C., and it happens that the American figures or dates that we have for the

first origin of Chavín, Chorrera of Ecuador (which belongs to the same group) and Olmeca of Mexico, are much earlier, frequently going back to 1,000 BC, and sometimes approaching 1,500 BC. c.

We insist on the following fact: there is talk of Chinese influences in America at that time, but those that are presented as such, according to Men-ghin and Heine-Geldern, are cultural traits of European origin from the beginning of the Iron Age, which are They intend to reach our continent by passing through China first. At the same time as its carriers, they would be non-Chinese peoples from southern China who were later Chineseized. The true elements of this origin that are noted in America are very scarce.

We move on to the third migratory current:

"We thus arrive at the third era, characterized by strong relations with the Hindu cultural world; They possibly affected Mesoamerica first, spreading in the Andean region in a more indirect and attenuated way. At first, such an idea seems astonishing, but it is based on quite solid arguments, as shown by Eckholm, Heine-Geldern, Imbelloni and Krickeberg. Strong religious movements radiated from evolved Buddhism to all the countries adjacent to India, in

THE "PONTIC" MIGRATION OF PEOPLES Indo-GERMANS TO CHINA AND DONG-They ARE, according to R. Heine Geldern, Die Asiatische, etc. The author assumes that Germanic peoples, Illyrians, Thracians and, above all, Cimmerians, carried out this migration and conquest around 800 BC or shortly after, and that from Dong-son there would have been metallurgical influences that reached the Andean region. We are not opposed to the theory of that

migration with respect to its arrival and conquest in China, but we do say that there is no evidence, on the contrary, of its extension to Dong-son. The elements of European-type metallurgy found in Dong-son would come from the maritime relations that that culture would have had with the ancient Eastern Mediterranean.

first of all to Indochina and Indonesia, which soaked up the Hindu spirit, mixing the new with their own traditions.

For us, this process translates especially into the reception of a character.

teristic concept of the cosmos and certain forms

more of plastic and architectural art. Regarding the first point, it is a special nuance of the so-called Templar cosmology, which is part of Hindu-Buddhist beliefs. According to this ideology, the world extends towards the four cardinal points, in the center of which rises the Hill of the World and Heaven, called Meru. The earth's disk is divided into four quadrants separated by the seas. This primitive and simple scheme, already conceived by the ancient Mesopotamian cultures of the fourth millennium, was elaborated and complicated by the most recent Brahminism and Buddhism... This cosmological picture was imitated in the plan of the capitals and residences of the world. indubuddhist; ... Tenoch-titlán, which was the capital of the Aztec kingdom, presents exactly the same plan. The genetic-historical connection is clear. There are many other step pyramids in Mexico, some of them strikingly similar to Asian ones. The fact that the South American ones date back to a considerably older age than those from Indochina does not contradict their Asian origin, since it is only a question of conservation..."

“They are also repeated in Mesoamerica

other architectural elements of Buddhist temples and monasteries, such as snake balustrades, columns with a back wall, half columns as decoration of facades, gods placed on top of crouching human figures, the mythical Macara, a Buddhist sea monster with a human being in its mouth, the celestial tree with a demon's face at the top of the trunk and the lotus frieze that, despite all the stylistic differences, appears, with astonishing kinship of the motif, in Amaravati, a temple of the southeastern coast of India and in Chitzén Itzá, in Yucatán."

"Let us add that the parasol in India and Southeast Asia represents an insignia of royal rank, the same as among the Mayans

It would be possible to add many more examples in the field of religion, mythology, art, sociology and technical and economic cultures. Its quantity does not allow any other explanation than direct connections between the Hindu Buddhist world and South America, although both elements may have arrived with the oldest currents. We will mention only one more curious fact: the appearance of a small clay sculpture in Mexico representing a head, which all connoisseurs judge as a work of art.

THE INTRODUCTION OF CERAMICS AND ITS DIFFUSION IN AMERICA. According to G.F.

Carter, Man and the land. The author follows here the interpretations made first by Prof. R. Campá Soler, later reproduced by E. Estrada, B.

Meggers and C. Evans, regarding the influence of the Jomón culture on the Ecuadorian coasts, which would introduce ceramics to America.

Then it locates its geographically correct diffusion, but in some cases they are earlier, as occurs, e.g. e.g., with the Puerto Hormiga culture of Northern Colombia, which dates back to 3,000 BC.

We believe, furthermore, there was introduction of the

ceramics in Western Mexico, at the same time as in Valdivia, Ecuador.
Likewise, the Valdivia culture of Ecuador did not come from the Jomón culture of Japan, but from Indonesia, following the Equatorial Countercurrent, while the same influence was directed towards Japan.

The acronym BP means before the present used for radicalbonic dating.

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romana (Heine-Geldern)” (Ob. cit., págs. 93- 94).

The subdivision of the migrations presented seems quite complete, but it does not really address many other facts.

We will comment on only one of them: the pyramids. The author clearly says that the South American pyramids (particularly the Mesoamerican ones) are older than those of Indochina (and Indonesia, we add). His observation that it is only a matter of conservation may be valid for adobe ones, but not for stone ones. Like the stone pyramids of the Mayans that predate those of the Indochinese and Indonesian peoples. For us it is already a reflux of America in Southeast Asia.

Our third author is Betty J. Meggers. Its importance is quite great, since it seems to be the only thesis on transpacific relations that has managed to have an effect on a group of indigenous North American researchers, who have come to accept it perhaps because of its simplicity. Its summary is the following: around 3,000 BC. C., a junk from Japan, possibly swept away by storms, reached the coasts of Ecuador, and its survivors (perhaps only one) there taught a primitive group of fishermen the art of making ceramics, which Then it spread throughout the continent.

Naturally, given the antiquity mentioned nothing, those castaways would not be of the current Japanese type, of Japanese language, but rather their previous settlers, the Ainos, who had already known pottery for a long time, but not agriculture. That pre-Japanese culture is called Jomón.

AN IMPORTANT COMMENTARY BY K. DITTMER on an Aztec figure. Plate X, fig. 3, from the work of K. Dittmer, General Ethnology, in which he tells us: "Warrior with feather armor (Mexico)." The drawing comes from the Codex Tallerianus Ramonensis.

Then, in Note on page. 316, adds: "The ancient Mexican weapon called macuáhuitl, a wooden sword with obsedian points embedded in both edges in order to obtain a

cutting edge, makes one suspect (like the weapons of the inhabitants of the Gilbert Islands) that they try to imitate the effect of metallic weapons after having lost the technique of working metal. The forerunners of the Maori in New Zealand also seem to have known metallurgy judging by the current forms of their wood and stone weapons." There are other figures in the codices where the metallic imitation in the form of the macuáhuitl is clearer, but we support everything said by the author, and we are happy to find such a coincidence with our interpretative ideas.

That idea is not original to the author. The first discoverer of these relationships between a

middle period of the Jomón culture and the ceramics of the Valdivia culture of the Ecuadorian coast (from 3,200 BC), was the Uruguayan-Guayan researcher Raúl Campá Soler, who published the first news about it in April 1961. He subsequently met with Emilio Estrada, an Ecuadorian researcher, who three months later published a work on this topic in an Ecuadorian newspaper pointing out these relationships, and without mentioning his first discoverer.

Shortly after, Estrada joined forces with North American researchers Betty J. Meggers and her husband Clifford Evans, publishing several works on the subject. In October 1961, Estrada and Meggers published a new discovery of interpacific relations, with the title A Complex of Traits of Probable Transpacific Origin on the Coast of Ecuador. They showed a series of illustrations of little houses or models of

STONE PUZZLE FROM MELANESIA AND AMERICA. According to Ekholm, taken from Martínez del Río, L Ed., fig. 90. From left to right: Melanesia and Peru, Melanesia and Peru, and Melanesia Mexico It would deal with "convergent inventions", although "suggestive". The first two forms of is stone, as seen by its rounded edge; but the next four are clear forms c central protruding lip that allows for better grip. Its original forms of bron millennium before the Era. The last form is also common in Costa Rica. The originals

History.

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BARK FABRICS AND CRUSHERS TO MAKE THEM, IN OCEANIA AND AMERICA. According to Dr. Ekholm, American Origins, 3rd. Ed., fig. 91. The fabrics come from Polynesia and America; it Mexico, wooden ones, stone ones from Hawaii and Panama. Fabrics and wood crushers sim Amazon, etc. Crushers like those made of stone were used in Mexico for manufacturing. It was not paper but a kind of papyrus. Originals at the American Museum of Natural History

houses made of ceramics, similar between the coasts of Ecuador, Indochina, Indonesia and Japan; and also neck supports for sleeping, from the same regions, etc. Their antiquity is much later than what has already been explained, since they correspond to the Bahia culture, whose origin dates back to 500 BC. C. and that lasts just as long after the

Was. Contrary to the previous interpretation, this last one has been little accepted, even though we consider it extremely important.

We will not make quotes, but rather summarize what we know about the author. We have seen that it indicates the existence of at least two relationships

cultural. It is possible that he accepts others, since, for example, in a work published in the UNESCO Courier magazine, he affirms that the architecture, astrology, calendar, mythology, etc., of the Mayans have Asian correspondences, but we do not know how or on what date these possible relationships are located.

However, what the author fundamentally maintains is the relationship between Valdivia ceramics and that of the middle Jomón, from 3,200 BC. C. approximately, and compares an abundant series of ceramic fragments, where the relationships are evident. Jomón pottery begins around 8,000 BC. C., and has a long development; that of Valdivia appears locally

ROMAN HEAD IN TERRACOTTA FOUND IN MEXICO.

Found in 1933 in Toluca, Mexico, by archaeologist José García Payón. It is two centimeters high, and corresponds to Roman art from 200 AD. C.; It was found in an untouched tomb of the Matlazinca culture from the 9th century AD. Its origin via the transpacific route is undoubted, and it would have passed through Indonesia. Roman coins have also been found in Mexico, and chroniclers mention them especially in the conquest of Venezuela, but we do not know of any reproduction of them.

Según R. Heine-Geldern.

already developed mind, without local antecedents.

The distance between Japan and the Ecuadorian coast is about 9,000 miles, which is very distant for a trip made at the mercy of storms, but it is still possible to do it.

We agree that a single survivor of that shipwreck would have been enough to have taught the art of ceramics to the local residents, along with the typical ornaments to which he was accustomed; but what we do not agree on is that the relationship is established with pre-Japanese Jomón.

In fact, in Jomón ceramics more

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TWO TEOTIHUACAN TRIPOD VASES, existing in the State Ethnographic Museum, Stockholm. According to HD Disselhoff, Pre-Columbian America, figures 13 and 14. The author tells us page. 35

The classic tripod vase from Teotihuacán constitutes a very extraordinary phenomenon within international ceramics; its shape suggests a clay copy of a metal container. For a ceramist, the use of such a form applied to a ceramic vessel must constitute a real attack on his art." Heine Geldern compares these vessels with forms made in bronze from China of the Han dynasty, but without noticing that the same tripods were also found several centuries earlier in bronze in Etruria.

American forms can derive from both Chinese and Mediterranean forms. In Chuquisaca, Bolivia, a similar stone vessel was found, with a lid, smooth and unadorned.

ancient, in the little that we know through illustrations, we see a type of forms and ornaments very different from what appears in the middle Jomón, which, evidently, is not a local development of the above. It is clear to us, and not only to us, that the middle Jomón culture received strong influences from peoples, already daring

avid navigators, which developed towards the south, on the coasts of Indochina-Indonesia.

It has even been assumed that the Jomón culture then received, from the south, the agriculture of the tuber, called taro in Polynesia (Colo-cassia), which greatly changed the previous physiognomy of the culture. Then he would also receive the ornaments stamped with shells and seals on the ceramics, motifs that appear in a large part of Valdivia.

TWO CHACO-SANTIAGUEÑOS CERAMIC, Averías culture, with tricolor decoration. According to Wagner. His style is immediately related to the Mojocoyay Tarija painted cultures of Bolivia. Wagner Archaeological Museum, Santiago del Estero - According to Wagner.

HALF OF THE PLATE from the Chaco-Santiagueña civilization, from Llacta-Mauca, one third of its natural size.

It represents a bird figure with a somewhat human face and large wings. Wagner Archaeological Museum, Santiago del Estero. According to Wagner.

Unfortunately, the archaeological work done in Indochina-Indonesia is not enough
to clarify the panorama for us; but they are found- shell-patterned pottery in those regions even in recent times.

For us the problem is clear: the relationship between Valdivia and the middle Jomón is not

PUCOS or deep plates, with black decoration on a reddish background; The motif apparently represents hands with an eye in their center, but in reality they are representations of a winged serpent, with many wings. Chaco-santiagúe-ña Civilization. Wagner Archaeological Museum, Santiago del Estero. According to Wagner.

direct, but rather they are maritime expansions of Southeast Asia that, on the one hand, reach Japan and, on the other, crossing the Pacific and following the equatorial countercurrent, reach the Ecuadorian coasts , and undoubtedly also to the coasts of neighboring countries, perhaps as far as western Mexico.

3.—The data that is preserved from the oldest history of indigenous American civilizations.

We know that there are two types of interpretations about the origin of indigenous cultures.

CHACO-SANTIAGUEÑAS CERAMICS, in a third of its natural size, with motifs of staggered and spiral triangles that intertwine, which show an immediate relationship with the Mojocoya and Tarija painted cultures of Bolivia, discovered by the author. Wagner Archaeological Museum, Santiago del Estero. According to Wagner.

TWO CERAMICS FROM THE NAZCOID CULTURE OF BOLIVIA, the first from Cochabamba, the second from Mojocoya, Chuquisaca.

Polychromes. The second piece is barely two millimeters thick, thus evidencing its metallic copy. Archaeological Museum of the University of Cochabamba.

more developed from the Neolithic period. The first of them is the one that maintains a local origin, independent of any external influence. Apparently it was carried out in Mesoamerica, at least since 5,000 BC. C., thanks to the cultivation of corn, source of sedentary lifestyle and

CERAMICS OF THE YAMPARA CULTURE, of the Cochabamba and Chuquisaca Valleys, Bolivia, author's findings. Red and ochre background with drawings in black outlined by white lines. Local formation by fusion of previous local cultures, possibly since a little before the beginning of the last millennium. This culture was finally conquered by the Inca expansion, around 1470.

all subsequent developments. In contrast is the thesis that we hold, along with many others, of external, transpacific influences.

In several places, indigenous peoples preserved some memories of their trans-Pacific origins in lands where the sun set (in Mesoamerica, for religious reasons, this was sometimes moved to where it rose). On the Peruvian-Ecuadorian coast, the indigenous people spoke of invasions coming from overseas, a matter we will discuss later.

The traditions of the Mayans and Aztecs, and the peoples of the Peruvian-Ecuadorian coast, are the ones that provide us with the most data on the origin of the civilized indigenous people in overseas lands, but they are not clear enough or abundant in data to allow us have a direct and clear understanding of the case,

so you have to interpret them. One of the most valuable data that these indigenous relations could have provided would be the clear mention of the immigrants' language, but

If there was, that data has been lost.

But to see clearly that not everything has been lost, we will reproduce here a fragment of the second letter from Hernán Cortés sent to the king of Spain, informing him about his first arrival in Mexico, and his interview with Moctezuma:

MOCHICA CERAMIO WITH A PROBABLE REPRESENTATION OF VISHNU. In India, the mount of the god Vishnu is the eagle, as we see in an attached representation. Similar representations, like the present one, are abundant in Moche ceramics, where a divine character rides on an eagle. Another distinctive feature of Vishnu is the snail, which appears in Mesoamerican representations of Quetzal-coatl. From: A. Tamayo Vargas, Poem of Vichama.

"(Moctezuma)... And after having given it to me, he sat on another stand, which was then made there for him along with the other one where I was; and sitting, he proposed in this

manner:

"Many days ago, through our writings, we have learned from our ancestors that neither I nor all those who live on this land are not natives of it, but rather foreigners and come to it from different parts of the world."

SAME SCENE IN PERU AND INDIA. Representation of the Hindu god Vishnu riding on the eagle Garuda, in a sculpture on the island of Bali in Indonesia. The god Krishna is frequently represented in the same form, and is thus interpreted here. In Moche ceramics, the representation of a god is common, riding in a similar way on an eagle. In G. Buschan, Die Sitten der Volker, volume |, fig. 293.

very strange; and we also have that our generation brought a lord to these parts, whose vassals they were all, who returned to his nature, and then returned to come for a long time, and so much so that those he had left with the natural women were already married. of the earth, and they tempt many generations and peoples where they lived; and wanting to take them with him, no

They wanted to go, much less receive him as lord; and so, he turned. And we have always had it that those who descended from it would come to subjugate this land and us, as their vassals. And according to where you say you come from, which is where the sun rises, and the things you say about this great lord or king who sent you here, we believe and hold it certain that he is our natural lord; especially that you tell us that he has heard from us for many days. And therefore be certain that we will obey you, and we will have as lord instead of that great lord that you say, and that in this there was no fault or deception; And you can well in all the land, I say that in the one that I possess dominion, command at your will, because it will be obeyed and done, and everything we have is for what you want to use it for.

And so you are in your nature and in

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your house, relax and rest from the work of the road and wars that you have had; I know very well all that has been offered to you in Puntunchan here, and I well know that those from Cempual and Tlascaltecal have told you many bad things about mt: do not believe more than what you see with your eyes, especially those who are my enemies and some of them were my vassals, and they have rebelled against me with your coming, and therefore

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Everything I had, you have whenever you want it. I go to other houses, where I live; Here you will be provided with all the necessary things for you and your people, and you will not receive any person, since you are in your home and nature. "I responded to everything he told me, satisfying what I thought was appropriate, especially making him believe that your majesty was the one they were waiting for, and with

Assyrian and Persian TORTURES AMONG THE INCAS. Drawings by Huaman Poma. In the first illustration prisoner with a kind of tongs; in the second, Captain Rumiñáwi, traitor to Atahual with its skin a drum. Both events were an Assyrian custom, inherited by the Persians. Were that instead they cut off the hands of the prisoners, something that we do not know existed in

favor with you they say it; who I know have also told you that I had houses with walls of gold, and that the mats on my platforms and other things of my service were also made of gold, and that I who was and made myself a god, and many other things. things. You already see the houses that are made of stone, lime and earth." And then he lifted the clothes and showed me the body, saying to mt: "You see me here that I am flesh and blood like you and like everyone else, and that I am mortal and palpable." He grabbed his arms and body with his hands: "See how they put you in; The truth is that I have some gold things that I have left from my grandparents;

that said goodbye; ... (Vedia, Enrique de: Primitive Historians of the Indies, volume one, Letters of relationship of Fernando Cortés, pp. 25-26).

With what has been transcribed, there is no doubt that the indigenous people (their ruling classes) kept news regarding their extra-continental origin.

It can even be assumed that Cortés exaggerated the note, but it is impossible to maintain that he invented such a specific relationship.

The Spanish conquest destroyed the civilized indigenous peoples too quickly, so countless cultural data were lost.

natural and historical events that could have been saved if both civilizations had coexisted.

Among what was lost is most of the oldest indigenous history, which was undoubtedly known to very few specialized historians.

Certainly, another part has been saved. It was written by the Spaniards themselves based on the stories of the indigenous people, and in some cases by mestizo indigenous people who had learned our letters, but who unfortunately were already very Spanishized, or rather Christianized. In reality, there are no indigenous people who have written as such, although some isolated paragraphs are preserved. For example, the one who says that the faces of the Spaniards

EGYPTIAN PRIEST COVERED BY A PANTHER SKIN, represented in the papyrus of Ani and corresponding to a priest of Osiris. This representation does not correspond to a Tiger-Knight, but to a state prior to the complete formation of the chivalric orders of the Tiger-Knights and Eagle-Knights (which seems to occur around the 15th century BC among the Assyrians and Hittites). The same type of representations is found among the ancient Mayans, while among the Toltecs the full appearance of both orders of chivalry occurs.

the sight of gold, they lengthened like those of pigs before food. That phrase, certainly, was not written by a Spanishized indigenous person.

In the chronicles cited, indigenous history begins in relatively recent times.
There are few data on more ancient peoples.

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BAS-RELIEF OF THE SIDE OF A MAYAN DOOR IN PALENQUE. It is a door similar to that of the Puerta del Sol in Tiahuanaco, although it is not monolithic. It depicts a priest, covered in a jaguar skin (not a tiger knight), smoking a straight pipe in an undoubtedly ceremonial act. Panther skin was used in the same way by Egyptian priests, in Greece, etc.

guos, very valuable indeed, but it is almost like talking about the “Worshippers of Horus” from the pre-history of Egypt. Reliable data begins a few centuries before the conquest, around a millennium for Mesoamerica, although the first half is debatable, and a mere two centuries for the Andean region. Furthermore, it is evident that what the chroniclers were able to collect came from indigenous historians of second importance, although regarding Mexico, especially Father Sahagún, collected some data of first importance; But as for the Peruvian region, the loss is much greater. One fact is enough: there was no chronicler of Peru who left a good description of the Inca calendar which, as we will see later, was no less developed than the Mesoamerican one.

For the Valley of Mexico, history (already true history, not proto-history) begins with the people called Nahuas, from the Uto-Aztec linguistic family. Town that invades from the northwest and whose first contingent is supposed

It was (according to current authors) that of the Toltecs who founded the kingdom and the city of Tula.
However, the old chroniclers attributed to them the founding of the city of Teotihuacán, which is much older. This last theory was accepted until a few decades ago. The antiquity of the city of Tula is not yet well established, since there are various calculations within the last third of the first millennium after the era. Most likely, ancient chroniclers were more correct about the early Toltecs than recent interpretations.

Further to the southeast, were the ancient Mayans and Quiches, of related languages, who have also left abundant material to study their history during the last half millennium before the conquest. The Quiché kingdom was born due to migration to the territory

HORRIBLE EQUAL TORTURES IN INDIA AND MEXICO. In the illustration (which comes from a vi
lost) comes: "La Fete du Churruck Poojah - Danse des Sunyasees". The two fakirs of c
first a live snake passes through it, the second a long, sharp stick. Same things and as seen in the attached illustrations. Could such kind of self-torture be due to
simple invention? Furthermore, it should not be interpreted in isolation, but rather together with

Guatemala from a group of fugitive individuals from the Toltec Empire, destroyed by a new invasion of Nahua peoples, still barbaric, coming from the NW of Mexico. It subsisted for several centuries, until the Spanish conquered it.

Mayan history is older, but its data has been lost. According to archaeologists there was a so-called Old Empire, of which we have no historical data; and a New Empire, developed in Yucatán. This also had dominant Toltec influences, although idiomatically Mayanized, as well as the Quiche. His story was partially collected by Father Landa, who also had all the indigenous books he could burn. Unfortunately, the unity of that kingdom had been broken for a while.

century before the conquest, and the kings of the various cities had fought to the death for their dominion. The result was a decline of

culture and, when the conquest occurred, the subdivision into twenty minor kingdoms.

As we see, the Toltec influence was extensive towards the south, at the same time that they disappeared from the

FIGURE OF THE GOD MARDUK OF BABYLON. Interested in her representation of a dragon at his foot, which constituted his sacred animal, in a similar shape to that which appears in a bas-relief from Chavín, which at the same time shows a triangular Assyrian type ring.

Valley of Mexico or at least that's how it is referred to. The new invaders, who were their language relatives, formed new small kingdoms, which developed over time. The last of the new invading tribes was the Aztecs, who, by the way, it is said, did not originally stand out for their culture. She was the founder of the village of Mexico, or Tenoch-titlán, around 1325-27 AD. Then he began his ascending career and came to dominate nearly a million kilometers of territory, creating a true Empire, which was undone a century later with the Spanish invasion.

Further south, in Nicaragua at least, more precisely in the kingdom of the Nicaraguans, who spoke the Nahua language, there must have been true written history, because according to the chroniclers there were writings with hieroglyphics there. However, their destruction was so complete that nothing has reached us, not even the slightest sample of them.

In South America we only have three regions where certain evidence of

history: Colombia, Ecuador and Peru-Bolivia, extending in its last period through northwest Argentina and half of Chile.

In the first of these countries the Chibcha or Muisca civilization developed. Its history spanned a century, and was that of a kingdom weakened by an overly absorbing theocracy and the

uprising of the lords of a province to conquer the throne. There are religious traditions

previous works, which are supposed to date back to the time of Christ, but constitute nothing more than a mythical tradition, without historical continuity, of isolated events.

Probably, in Ecuador there existed a longer-lasting kingdom, that of the Caras. Dis-

Fortunately, its story is told by a single chronicler, Father Juan de Velasco, more than two centuries after the conquest, so its authenticity has been questioned. However, other previous chroniclers tell us about a king of Quito, which confirms the existence of that kingdom, although it is assumed that Velasco expanded it with data of his invention. This story tells of the arrival of a foreign people, the Caras, who landed on the central coast of Ecuador by means of a fleet of rafts and by sea navigation. Later-

They initially invaded the plateau, in Quito, where they founded a kingdom that lasted nearly five hundred years, until it was conquered by the Incas.

The northern coast of Peru also has its local history, and traditions of transpacific travel that we will see later. Local history

BAS-RELIEF OF CHAVIN WITH REPRESENTATION OF A ASSYRIAN ARO AND THE DRAGON OF MARDUK. It represents a masked Tiger-Knight, according to the features of his mouth. A draconian figure emerges from his left foot, as sometimes occurs with representations of the god Marduk in Babylon. In front of his mouth he appears to have a trumpet made from a sea snail. The triangular ring that it displays is clearly of the Assyrian type, since only there are those rings with a triangular ending found. From Hans Baumann: Gold and Gods of Peru, p. 142.

refers to the kingdom of the Great Chimú, where the names of numerous sovereigns appear. Its beginning would date back to about three centuries before the Inca conquest.

The history of the Peru-Bolivia region is more complex but, in this case, due to the abundance of data that has largely been falsified.

two. The history of the Inca Empire has more historians than any other region on the continent, but they frequently differ from each other.

They tell the story of the origin and aggrandizement of the Inca Empire, with a total of twelve sovereigns who would have reigned for three hundred years or a little more.

IVACAS IDOLS.

A PHOENICIAN RELIGIOUS CEREMONY IN INCA PERU; according to Huaman Poma. The author points out this fact as a custom not of the Incas, but of the indigenous people of Chinchaysuyu, who formed the main part of the Empire. It is the ceremony of passing infants over the fire, a Phoenician custom cited numerous times in the Bible and naturally condemned there.

If we leave aside Garcilaso, and other interested chroniclers who followed him, the history of the Incas can be summarized as follows: the first Incas, until Huiracocha, the eighth, were owners of a small territory around Cuzco. Huiracocha began the aggrandizement of the country. According to most chroniclers, it was his son Pachacuti who did it, but for us it is the same person. He even agreed to an alliance with the king of the Collas, who dominated from Arequipa and Copiapó to Cochabamba. Then he defeated the Chancas, who were at war against the Collas, and who during it attacked Cuzco. Garcilaso

He narrated it as if it had been an uprising of the conquered Chancas against the Incas.
In this way, he became the savior of the Colla kingdom and, taking advantage of that, he treacherously attacked the Colla king, called Chuchi Capac, and

took over their territory. This is how the greatness of the Incas began, dating back to the early 1400s at most.

If that story is like this, as it seems, the most likely thing is that all the alleged first Incas were nothing more than feudal lords of the Colla kingdom, including Huiraco-cha himself in the beginning. In this case, there would undoubtedly be a long previous history, that of the Colla kingdom, which would continue the civilization of Tiahuanaco. But from that previous history we only preserve a few fragments with the names of three or four kings, since Huiracocha-Pachacuti was in charge of erasing it.

After his triumph he had a “Congress of historians” meet and had a story prepared to his liking, according to which he descended from the Sun god. He had it painted, performed in theater and sung in specially adapted historical songs. Through these songs and theatrical performances, the Inca nobles learned the history of their country, and that was what they narrated to the Spaniards.

We have discussed the subject at length in our work The True History of the Incas and we refer to it for more details.

Now, it happens that there were also similar alterations in Mexico. The same has happened in many other parts of the world; For example, the Hebrews falsified their history (in the Bible) to deny their Phoenician origin, but it happens that the Hebrew language is a poorly differentiated dialect of the Phoenician language. In Mexico the alteration occurred under the reign of the monarch Itzcóatl, the fourth Aztec king in history, who ascended the throne around 1429 AD. The inspirer of that idea was a nobleman named Tlacaélel. It was then ordered to burn all the ancient historical codices of the neighboring towns and even the Mexicans themselves, because in them the figure of the Aztec people was unimportant. Until the moment they triumphed, it was nothing more than a recent people of upstarts, beggars and sometimes mercenaries, which did not match the glory and

the power they had then obtained. This was reported by several chroniclers, and is repeated by recent authors.

A serious drawback was the attempt to erase a past of misery. He had all the necessary strength in his hands to do it.

However, after erasing it, the only thing that remained of the oldest history of the Aztec tribe itself was that past of misery, which was overcome thanks to the advice of the priests who spoke in the name of their gods.

For us things are clear: a past of misery was not erased, but a past of greatness. There was the memory of the barbarian invasions and the origin in the Seven Caves, but that went back at least a thousand years before the date assigned to the Toltec invasion, in the 7th century AD and the same thing happened among the incas This barbaric period was placed as immediately preceding the historical beginning of the Aztecs, and the same thing was repeated in the origins of the Toltecs. In other words: a thousand years of civilization were erased, of which we only have some scattered historical fragments left, confused with those of the historical Toltecs. Among the Incas, the history of the Colla kingdom and that of its predecessor was also erased: the civilization of Tihuanaco, equivalent to that of Teotihuacán.

“His story was kept to himself.
But then it was burned: when Itzcóatl
reigned, in Mexico.
“A resolution was made, the
Mexican gentlemen said: it is not
convenient for all people to know the
paintings.
Those who are subject (the people) will be ruined
and the earth will go crooked,
because many lies are told there, and
many among them have been considered gods.”

(Leon Portilla, M., The Ancient Mexicans, pp. 92-93; from an ancient Aztec historical song-

ca, collected by Sahagún).

In short, for us, the Aztecs would be direct descendants of the Toltecs, and these, in turn, were the first inhabitants not only of Tula, but also of Teotihuacán. The same happened with the Incas who, despite the change of the Aymara language to Quichua, carried out by Huiraco-cha, would be direct descendants of the civilization of Tiahuanaco.

Furthermore, almost all countries in the world, and not just the ancient ones, have similar alterations in their history.

4.—The cultural past of America in the middle-two of the last millennium BC. C., that is, in the period called Upper Archaic or Upper Pre-classical.

This cultural period is also called Upper Formative, and was preceded by the Lower and Middle periods. Generally, a chronological table is made that is easy to remember,

putting periods of duration of 500 years each beginning around 1,500 BC. C., so that the end of the Upper Pre-classic would correspond to the times of Christ. But it would seem that the dates have to go back some distance, beginning in 1800 BC, and ending about two centuries before the Era. See the chronological table of Ignacio Bernal that we attach.

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MAP OF PERUVIAN CULTURES AT THE BEGINNING OF THE ERA.

According to LG Lumbreras, Ancient Peru. Almost all of these cultures begin several centuries before, superimposing the Chavín culture, and, at the same time, last several centuries, some until the time of the Expansive Tiahuanaco.

We are referring especially to Mesoamerica, but in Ecuador and Peru the same thing happens. The Machalilla culture of Ecuador dates back to 1,800 BC. C., and the next one, Cho-rrera, at 1,500. It is important to note that the Machalilla culture is the one that offers the oldest jugs with stirrup handles, of great later development in Peru. Regarding the Peruvian region-

In the first place we would have the Wayra Jirka culture, around 1,800 BC. C., to which correspond stone axes with fins that imitate previous bronze forms. Possible-

The first stone constructions of Cerro Sechín would correspond to that same date or shortly after.

Around 1,500 BC. C., we have the beginnings of three great cultures in these regions. In

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DEVELOPMENTS; MOCHICA [CAJAMARCA
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PAIJAN

DEVELOPMENT CHART OF THE ANDEAN SOCIETY
According to Lumbreras and others

DESPOTIC URBAN SOCIETIES

KINGDOMS AND LORDS

THEOCRATICS

TORES
VILLAGERS

AGRICUL-

LAURICOCHA

GUITAR PLAYER

COLLECTORS
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SIERRA COAST COAST | PLATEAU
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AYACUCHO
PACAICASA

VISCACHANI

DEVELOPMENT TABLE OF ANDEAN SOCIETY, according to Lumbreras and others. It is a painting areas and cultures; such as the extreme north coast of the Peruvian province of very important culture of Vicús-Pabur. Also missing are the oldest phases of Recuay ye

Vicus.

Mesoamerica the first Olmec manifestations, which develop more in the middle period and last until the upper period. In Ecuador the Chorrera culture appears, which develops more in the middle period and disappears at the beginning of the upper period. In Peru, the Chavín culture (although with some earlier isolated manifestations) developed in the middle period, and disappeared at the beginning of the upper period.

The above is necessary to place ourselves in the period we have to deal with. All the cultures mentioned, also those prior to 3,200 BC. C., would come from ancient relationships and interpacific migrations. Those especially mentioned have numerous cultural elements

corresponding to a full Bronze Age, although they have lost the feature of metallurgy in their diffusion to America. It can be assumed then that no metallurgist would have arrived with them.

We begin to discuss our cultural era: the Archaic, Pre-classical or Higher Formative. Their

The first manifestations must date back to 600-500 BC. Then a series of great cultural transformations took place in America and apparently produced important transpacific migrations, which we will discuss more fully below with some historical data we have about them. The later American civilizations, that is, the Classic and Militarist periods, developed on the basis that we are dealing with now, without new migrations; which does not mean that commercial communications are

they would have interrupted.

The places where these migrations are manifest have been mentioned previously, that is, the western coasts of Mexico, those of Ecuador and northern Peru. Minor influences reached the coasts of English Columbia and central California.

The new features that appear are extremely varied, indicating that the centers of extra-American origin were more than one.

But we can say that the period we are dealing with still has a preponderance of features typical of the Bronze Age, along with those that appear others typical of the Iron Age, and, then, fully historical knowledge of the ancient Mediterranean. At that time, in America, urban civilization was fully developed, although some true cities pre-existed, such as La Venta, Monte Albán I, and Chavín. On the coasts of Ecuador and northern Peru, foundry metallurgy appears; Ceramics have a very high development, especially in their polychrome painting, and the forms of metallic copy are multiplying. In architecture, pyramids, previously existing as platforms, are widely developed, and so is stone work. In religious matters, the first images of gods made of stone appear in Mesoamerica and Ecuador. Regarding social organization, the theocratic kings who already existed before, disappeared

They pray carried in palanquins and sitting on thrones provided with parasols, with scepters of various shapes, etc. Society must have already been divided into social classes and also, without a doubt, the formation of artisan guilds.

Priests and soldiers are represented, as well as their corresponding orders, Eagle Knights and Tiger Knights.

The first cultural features that we discuss are typical of the ancient Mediterranean, especially of the so-called orientalizing period, of

Phoenician diffusion. But then in Mesoamerica a number of Hindu style features appear, which also exist in the Andean region, although with much less development. At the previous Olmec cultural level, art tended to be simple, naturalistic and quite free, but in the period we are dealing with, some features of evident Hindu origin already appeared, and an overload in artistic expressions.

REPRESENTATION OF A BRONZE AX IN A TOWN THAT WAS UNKNOWN ABOUT METALS. Reliefs of Tabasco, Olmec civilization, whose front is presented attached. To the right of the reader, and engraved an ax whose shape is not made of stone but of bronze, as can be clearly seen, while that these people did not know metals. Is it perhaps a unique piece arrived through Covarrubias, The “Olmeca” or La Venta art, fig. 2.

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The forms of the Preclassical Ceramics of Mexico. According to M. Covarrubias. indigenous art of mex generally accepted, roughly speaking, is 1500 BC for lower Zacatenco; of 1000 for Ticomán and Chupícuaro. From the middle Zacatenco, as can be seen, most forms the claim of absolute ignorance of metallurgy in Mexico until 2,000 years ago.

This confronts us with a serious chronological problem. The first Hindu influences about the beginning of the 2nd century after Christ, and Indonesia, from where there must have been traces of Hindu origin that appeared ces in America could be about 500 years older. How would this be explained?

We believe that the archeology of India, and its derivatives in Indonesia and Indochina, have been studied by European and Hindu researchers influenced by an “Aryanizing” prejudice.
That is to say, they have only searched in this diffusion of India in Indonesia-Indochina for cultural traits that could be of Aryan origin. He

THE PONDS:

The result is that the oldest cultures of the Dravidian-speaking peoples of southern India and Ceylon have not been studied, and are supposedly placed after Christ and developed thanks to "Aryan" influence. Seeing that these cultures already existed before, we can remember the epic of the Ramayana, which dates back to at least 500 BC. C., and where standing cities are described.

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The Preclassic cultures in Kaminaljuyú, Guatemala. According to M. Covarrubias, Indigenous art of of Las Charcas, would be as old or older than the lower Zacatenco of the Valley of Mexico. Pair 14 540 BC for its beginning. The central piece or vessel from Las Charcas, bulging,

The same as in Ticomán, Chupícuaro etc., the staggered motifs begin to be found in occurs at the same time in the Andean region.

RELATIVE CHRONOLOGY OF THE NORTH AND SOUTH COASTS OF PERU

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A RECENT PERUVIAN CHRONOLOGY. By data from C-14. According to A.E. Sawyer, Ancient Peruvian C
Peruvian pottery has risen to 1800 BC at Kotosh Wayrajirka, but the other data
high antiquity given to negative Recuay, a cultural level that is still little known, and that is
some places. The same with Mochica | taken to 300 BC, which may have a greater anti
discovered by Campa Soler.

walled dras in Ceylon. Clearly, it would be that southern India, of Dravida civilization, that would have influenced the Olmecs at that time.

On the coasts of Ecuador, the most important cultures that
appear at this time are the
Guangala, Bahía I and La Tolita (called Jama

Coaque I by Estrada); The latter extends somewhat on the southern coast of Colombia, where it is called Tumaco, and is of extraordinary importance, as we will see.

On the Peruvian coast, to the north, with entrances into the Sierra, on the previous Chavín culture, the new cultures of Salinar, Galli-nazo or Virú and Recuay appear. Virú dates back to 550 BC. C., established with C-14, and Recuay with very little less. Further south, Paracas is developing intensely, with new contributions. Shortly after, if not jointly in origin, two other cultures of fundamental importance appear on the northern Peruvian coast: the Mochica 1 and that of Vicús, or Vicús-Pabur. Both have developed metallurgy, which includes the smelting of copper, silver and gold, even the bronze alloy, with which they make jewelry and weapons, in highly elaborate forms, as we will see later. The antiquity of these two cultures dates back, according to current figures, to 400 BC. C., but it is evident that its origin should be quite earlier.

The ceramics of Mochica I are highly developed, with intensive use of molds for its manufacture (they existed before Chavín).
The oldest ceramics from Vicús show an abundance of modeled forms, but of much inferior work. It resembles some forms from Ecuador and Colombia of the time and, especially, the oldest known from western Mexico, both in its shapes and in the surface of the pieces. It can be assumed that a guild of metallurgists was integrated into a previous culture, and this would explain this developed metallurgy together with an older type of ceramics.

Without a certain date regarding its first manifestation, the culture of Lambayeque appears, on the same northern coast of Peru. Considered by some not earlier than the end of the first millennium of the era, but others place it in the time of Christ, along with the Mochica II. In our opinion it should be quite earlier, since in the Vicús culture ceramic pieces appear whose shapes reproduce typical metal pieces.

case of Lambayeque. For example: the annular bases (originally from Cyprus around 1,500 BC in metallurgy) are characteristic of

the metallurgy of Lambayeque. This is copied in ceramic pieces from Vicús, and consequently the culture of Lambayeque had to already exist. The most important thing about the Lam-bayeque culture is its highly developed metallurgy and the fact that almost all of its ceramics copy metallic shapes.

An important detail, discovered by Raúl Campá Soler, is that pyramids are not found in the Vicús culture, while they are in Lam-bayeque and Mochica I, where they are made of adobe.
On the contrary, in Vicús the rigid metal collars called torques appear (of which we will discuss extensively in the next volume) that are missing in Lambayeque among the Mochicas. Puzzles in the shape of stars and in the shape of complete gear wheels also appear in Vicús; made of copper and sometimes bronze. We reproduce his illustration. They supposedly date from shortly before the Era; as well as axes with a hole to insert the handle, like ours, which are missing elements among the Mochicas and Lambayeques. Later, the Incas inherited it from Vicús. With what has been said, it can be assumed that two or three metallurgical masters would have arrived by transpacific route from different origins.

In ceramics, the Moche I differ from the Lambayeque by the appearance, continuation of Chavín forms, of the stirrup-handle, while the Lambayeque have the handle-with-flat-bridge. Vicuses have both forms.

In Moche ceramics from later periods, the representation of paintings, copied from mural paintings, is widely developed, which can only be compared in the world with similar Greek ceramics. In a ceramic that we have seen in a private collection in Buenos Aires, a burial scene appears, as only seen in Mycenaean paintings and others from the geometric era. But most of the scenes depicted on later Moche ceramics show mythological war scenes, some of which, incredible as it may seem, correspond directly to the labors of Hercules (which are of Phoenician origin). There are also countless heads made of ceramic, true portraits with a live model, whose comparable forms are found mainly in Egypt and Greece. In China, with which so many comparisons are attempted, there is nothing similar.

Likewise, both in the Andean zone and in Mesoamerica, then the vessels appear

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TEOTIHUACAN III:

Chronological sequence of the forms of Ceramics in Teotihuacán. According to M. Covarrubias, A
53. Teotihuacán was generally placed | like a little after Christ, but Covarrubia
dating back to 900 BC Current dates place its beginning in the middle of the pr
first great American city. Most of these ceramics appear to be metal copies,

glass as fig. 4 of Teotihuacán II.

54

The succession of ceramic forms in Monte Alban, Caxaca, Mexico. According to M. Covarrubias,
fig. 59. The antiquity of the first period is at least 600 BC, perhaps up to 800.
America. The metallic copy forms appear already in the first period, as can be seen above, with their waists
that appear to be copied from welds; the second of them you
We know that way in America. Also the last figurine of the Period | shows a huaco

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MESOAMERICAN CHRONOLOGICAL TABLE. According to I. Bernal, The Mexican National Museum of Anthropol gives with very recent C-14 dates, and it is worth noting the extreme antiquity that is given to the most 200 BC when the classic Mesoamerican period would begin.

WESTERN

VASES FROM CALLEJON DE HUAYLAS EXTRACTED ON THE COAST. They correspond to the Recuay culture. Sec Virú. Of interest is the first one, which is a huaco-portrait, and whose copy of a previous model met ringed foot. The latter is characteristic of the Lambayeque culture, which is generally

There is good proof that it, in origin, dates back to times before the Era.

rithones, similar to their contemporaries from Greece and Persia, and whose shape supposedly originates from cattle horns. They are then made in metal and finally imitated in ceramic.

This entire previous process is missing in America, where the shapes already imitated in ceramic arrive first (although in Lambayeque there are metal ones). Another important element that does not appear until later are the keys or staples (in Argentina grampas) in architecture, made of copper and bronze. They seem to begin among the Assyrians or Hittites. In Greece they appear around the 8th century before the era, and there they have three forms

successive stages of development, the last one being completed around the 5th century BC. C. They appear in Tiahuana-co shortly after Christ, the previous forms being completely lacking in America.

There are magnificent silver bugles, imitated in ceramic (and abundant originals in metal), some of which are straight and others have a turn like bugles. They can measure more than a meter in length—cited in the Bible—and sometimes culminate in a zoomorphic mouth. Similar bugles exist in the Old World, for example in the ruins of Numan-

FEMALE FIGURINE PLAYING A MULTIPLE FLUTE, culture from La Tolita (Ecuador, or Tumaco in Colombia), prior to the Era, and which shows in its art relationships with Mesoamerica. The representation is very fine, especially in the face, which presents eyes in the "orientalizing" style of the Ancient Mediterranean, the same as in the Remojadas style of Mexico.

Museum of Man, Paris. From: Art/Branch, Encyclopedia of the Arts, fasc. 105, p. 120.

cia, Spain; They have been found imitated in ceramics and with animal mouths. In Lambaye-que, especially, the ring foot appears on the vessels, which in the Old World had its first great development in Cyprus in the middle of the second millennium BC. C.; Naturally, they are a metallic imitation.

Towards the southern coast of Peru, Paracas experiences new developments and, in the time of Christ, that culture is transformed into that of Nazca, which has the best ceramics in the world in terms of color and firing technique. In Paracas, the Mycenaean scepters with the double eagle are represented on fabrics, of which there is a beautiful example found in Cyprus.

In another textile from Paracas the undoubted representation of a camel appears, a fact that seemed impossible if some image of it had not arrived, either in a painting or textile, thanks to the transpacific navigators, and later reproduced locally. In the human figures of Nazca a female Mexican-type costume appears, with a separate blouse and skirt, which spread to NW Argentina with the Draconian culture. In Mexico the opposite happens, where, in Michoacán, the uncu or Andean "shirt" appears, whose first origin is Assyrian-Hittite. These cultures, following an Andean path through Bolivia, reach northwest Argentina, first with the Candelaria-Cóndorhuasi cultures and then with the Draco-niana, but we refer to our indigenous Argentine work to better understand these facts.

The culture of La Tolita-Tumaco, Ecuador and Colombia has an extraordinary importance, but unfortunately we do not know about it everything we would want. Its metallurgy in gold jewelry is little inferior to that of Vicús, but what is important about it are the ceramic representations that reproduce human faces and figures. Its entire style corresponds indisputably to the ancient Mediterranean in the orientalizing era, especially to the representations that still remain of the island of Cyprus.

Treating this in detail would take too much time, and we refer to the illustrations that are more demonstrative. It is the most similar to the ancient Mediterranean of the orientalizing era that exists in all of America.

We will briefly discuss Mesoamerica. There, in the period we are dealing with, evidently no metallurgist arrived with the transpacific relations, which is why metallurgy is missing until the end of the first millennium after the Era. But in ceramics and some stone objects we clearly notice the copy of previously known metal objects. That happens

already in all the most developed phases of the Olmec culture and are even known so much earlier.

We will transcribe some quotes from the work of Miguel Covarrubias, Indigenous Art of Mexico and Central America. We start with the culture of

REPRESENTATION OF A DROMEDARY IN A FABRIC OF PARACAS. Detail of a large cloak from the Paracas civilization, from around 800 BC to the time of the Era, on whose edges there are a large number of small figures embroidered separately and pinned to it, in colors. Above: detail photograph after Raoul D'Harcourt, Les Textiles anciens du Pérou et leurs techniques, plate LXXXV. Below: drawing of the same motif according to Julio C.

Tello, Paracas, Lima, S/f., page. 286. The figure clearly shows a camel, better known as a dromedary, with a load of branches on top; The shape of the head, the curve of the neck, its halter to drive it, the legs, the back and the fall of the body towards the tail, and the tail placed downwards (the flames carry it upwards), leave no room for doubt. that it is the representation of the said animal, and not a llama. The same goes for the size of the man - in the first illustration the detail of the shape of the back and the beginning of the tail is better seen. .in all

In any case, this fabric must be several centuries prior to the Era, but naturally the inhabitants of Paracas would not have known dromedaries, but rather they have simply copied some figure that arrived via the transpacific route.

Miraflores, in the southern part of Guatemala, dated C-14 dating back to 540 BC. C., and which follows the period or culture Las Charcas:

"3. The Miraflores culture, which occupies a long period, is notably different and much more complicated than the two previous phases, which suggests the sudden arrival and establishment of a very civilized people in said place, a people who feverishly dedicated themselves to fulfilling a program of building mounds, pyramids and platforms around rectangular plazas, and burying their chiefs and illustrious priests in large wooden tombs that stored a great wealth of offerings. Hundreds of pots were found in each tomb, as well as ornaments of jade, marble, bone, shell, mica, paint

red, obsidian blade necklaces, pyrite mirrors, "mushroom stones," clay figurines, jade bottles, and even a jade mosaic mask (Sook and Kidder, 1952). The Miraflores period has four subphases: Providencia, Miraflores proper, Arenal and Santa Clara, which show a marked flourishing in the second and third, and a clear decline in the last. The Miraflores period was determined by a gradual flowering; The variety of ceramics reached its peak in the Miraflores and Arenal phases, became coarse in the Santa Clara phase, and, finally, the preclassical cultures faded away to give rise to the classical Esperanza period" (Covarrubias, M.: Ob . cit., pp. 52-54).

The external influence is sufficiently

indicated at the beginning. Other civilizations

Soamerican cities corresponding to this period are those of Ticomán, in the Valley of Mexico; Soaked, on the Gulf Coast; Chicanel, in the Mayan region; Monte Albán I (which would begin earlier) in Caxaca; Chupicuarc, etc., in western Mexico, and particularly the higher phases of the Olmec culture that developed then in the isthmus of Tehuantepec and the southern coast of the Mexican Gulf, and which already has Hinduized features. The beginning of the civilization of the great city of Teotihuacán, in its period I, also originates at this time, in the Central Valley of Mexico, and this is incorporated into the Classic period in its II period, in times shortly before the age.

Ticomán, in the Valley of Mexico, seems to be an ancestor and at the same time a contemporary of Teoti-huacán I. According to Covarrubias, it receives strong influences from western Mexico, perhaps from

BRONZE LAMP IN THE UNDOUBTED SHAPE OF A CAMEL.

National Museum of Rio de Janeiro. Its shape and details, starting with the saddle, its hump, the shape of the tail, etc., are undoubtedly camel, but it was acquired in a set of pieces of Peruvian origin in 1867, and, consequently, its Peruvian origin pre-Columbian seems little doubtful, so much so that in the Museum's exhibition there is a sign that says that it is a llama, something naturally impossible as it seems, but in some way it must be denied that it is a camel. It would be an imported piece.

Colima and Nayarit. The famous circular pyramid of Cuicuilco corresponds to it, and it also contains the first obvious figure of a god of fire, made of stone and ceramic. All in all, it seems to be an impoverished or decadent culture.

We will briefly discuss the culture of Chupicuaro, as an example of those of western Mexico. Its beginning dates back to at least 500 BC. C. It is characterized by its ceramics, famous for its variety of shapes, its polychrome and its figurines, some small and solid, highly decorated, and Others large and hollow, painted, some of evident Olmec influence. The shapes of the ceramics are very varied, with numerous zoomorphic and anthropomorphic representations found. The painting of the vessels is frequently zig-zag, in black, white and red. Its motifs were later reproduced among the Pueblo Indians, whose form is strikingly similar in terms of artistic motifs and colors to that of Santiago del Estero, in Argentina. Chupicuaro too

It seems like an impoverished culture to us.

We move on to discuss the culture of Teotihua-cán I, which, along with Monte Albán I, are the main cultures of interest at the moment. Covarrubias says of her:

"Teotihuacán 1. In accordance with the new terminology, it is divided into two subphases called Chimalhuacán, the first, and Tza-cualli, the second. The first period is elusive and mysterious, and no remains have been found, until today, in situ, in Teoti-huacán, although they have been found in the filling of the pyramid of the Sun. This period has been tentatively dated to around the beginning of the Christian era, although radioactive carbon testing gave the incredibly early date of 900 BC. C. The ceramics of the first period were known through sherds and fragments of figurines mixed with the earth of a tunnel, about 110 meters long, that archaeologists opened through the axis of the Pyramid of the Sun to study its structure and investigate the possible existence of superimposed structures: It is evident, then, that the builders of the pyramid belonged to period I, and that they used the clays from the neighborhood to make the adobes... Their artistic manifestations are very impressive. -sionants: simple pottery of the pre-classical style in brown, orange, red, yellowish brown and black clay, decorated with incised geometric motifs, painted white on red, red on yellow and—most characteristically— painted with motifs wide and loose in the “negative” or “batik” technique in red, black and yellow colors, frequently striped with white lines painted “positively” (fig. 53).

“The figurines of the first period are coarse and barely outlined. They have crudely drawn flat bodies, and very rudimentary upper and lower limbs; The features and ornaments are made with a thick fillet of clay and deep grooves. These figurines are so crude that they can be considered the antithesis of those from the Zacatenco period, older, more refined and delicate. The figurines from the Teotihuacán 1 period show such exaggerated prognathism that they look more like animals than human beings. Both the pots and the figurines show relationships with the style of the upper pre-classic period, and it is clear that the “Teotihua-cán I” phase is nothing more than a local and intrusive aspect of Ticomán, which alone cannot be -of being the direct antecedent of the rich and elegant subsequent periods” (Ob. cit., pages 141 and 144).

Covarrubias then describes the notable development reached by the following phases of the

cultures of Teotihuacán. We will cite some details: this civilization lacks metals even though copies of metallic objects are abundant in stone and ceramics; a ceramic called thin orange appears; which becomes as thin as an eggshell (Cretaminoan origin), and whose shapes are normally metallic copies. Architecture developed widely, and stone sculptures of the gods reached seven meters high, etc.

In Monte Albán I, which begins with numerous Olmec features, we first find the famous Dancers, engraved in this those in bas-reliefs. The first hieroglyphic writing known in America appears on these stelae. Of interest are the human representations on the stelae and their antiquity. The same thing happens with them as with the stelae of Cerro Sechín in Peru, that is, they are not in their original place, but have been used again in a later construction. Monte Albán I is generally attributed an antiquity

AUTHOR'S MAP: Shading illustrates the Diffusion of the Orientalizing and Proto-Classical Period

expansions through Southeast Asia and America.

between 600 and 800 BC. C., which some raise to 1,000 BC. C. (see the chronological table by I. Bernal), so that the first construction of these stelae must be several centuries earlier, although we cannot determine it precisely. The same would happen with the writing and calendar depicted there. As for ceramics, Monte Albán I has numerous features of metallic copy. The human figures sculpted on the stelae often have beards, but the individuals represented do not have any characteristic Olmec appearance; They are very crude human beings. At least one of them has a clear representation of a metal or leather helmet.

Let us make some brief comments on other diffusions in America of this cultural level. In Colombia and southern Central America there are materials corresponding to the cultural level that we treat, although they are generally assigned a later date, which is feasible, and that they come from the first centers that we have treated. In this region, foundry metallurgy dates back at least to the time of Christ, although it was only used in the manufacture of jewelry.

Then there are the Pueblo Indians, from the SW United States, who through their ceramics

They are directly related to Chupicua-ro, as we have already said, but they subsequently receive a strong influence from ceramics.

mica with representations of scenes, a phase that constitutes the summit of its development.

Also, as a derivation of the cultures with knowledge of metallurgy from the Ecuadorian-Peruvian coasts, we find in the Amazon the cultures of Santarem, Marajó, etc., which, naturally, lost metallurgy, since there were no metals in those regions. But in particular, the ceramics of Santarem copy the metallic forms of those regions, particularly that of Lambayeque. Likewise, in the region of Santarem, and spreading greatly among the primitive peoples of the Gé language, stone axes with a crescent edge appear, copied from bronze forms, as well as wooden swords, of current ceremonial use. , whose shape copies ancient bronze swords.

There are two other coastal areas in North America that have received strong cultural influences from the period we are dealing with: English Columbia and the central coast of California. Several towns belonging to the aforementioned regions, more primitive in origin, have received a series of elements of the high culture of the

moment we try. They did not know ceramics, for example, but in both regions ceramic forms were copied in basketry and wooden vessels. In addition, copper and iron daggers (cited by Captain Cook, the first European visitor) were known in Columbia and, at the same time, were copied in stone.

The stone masks of Columbia, furthermore, are very similar to those of Teotihuacán.

Also the peoples of southern Mississippi and northern Florida, especially the Muscogis, received from Mexico a series of traits.

DRACONIAN MOTIQUE ON A MOCHICA GLASS. According to Julio C. Tello, Wira Kocha, according to which he represents “The divinity

Jaguar and the symbolic Serpent." According to us, the "draconian" features are evident in the protruding tips of its back and tail, in addition to the fact that it does not have feline fangs. Also, its vertical lines, instead of spots, indicate that it is not a jaguar, since they correspond to the lines of Asian tigers. The ophidic head on the tail, clear from the fact of the forked tongue, indicates a relationship with the Ancient Mediterranean and not with China, where there are no figures with a head on the tail. This reason reaches to the Argentine NW, with the Draconian culture.

cultural goals coming from the historical moment we are dealing with.

5.—Relationships between the American Upper Classical period, the orientalizing period of the ancient Mediterranean and the full Iron Age.

Among the "shy" diffusionist authors to whom we have referred previously, we find a series of relationships between American cultures and those of China, Indochina and India. But the "wall of the Indian Ocean"

maintained in almost all cases, and they do not dare to make comparisons with the ancient Mediterranean, no matter how obvious they may be. The latter are manifestly prior to any possible Hindu influence in America.

Heine-Geldern and his followers establish

that the first Chinese influences in America, followed by those of Dong-son, occurred in the period discussed, that is, approximately from 700 BC. C. until the beginning of the Christian Era. But they generally "forget" to say that these are not direct Chinese influences, but rather coming from the peoples of southern China, who at that time had not yet been Chineseized. In turn, these had intense maritime communication throughout South Asia, with the Persian Gulf and with the ancient Mediterranean through the Red Sea. Numerous cultural features of Phoenician, Persian, Greek and Roman origin,

REPRESENTATION OF THE “PANTALONCITO” ENMICENAS. According to
E. Vermeule, Greece in the Bronze Age, extracted from fig. 19.
Vertical Pit Tombs, Acropolis of Mycenae. This type of shorts (which already appears in
the cave paintings of Levantine art in Spain) spread to Indochina and Western Mexico, as we see
in other illustrations.

They reached those regions through the aforementioned sea route.

The first influences of the ancient Mediterranean basin in America date back to approximately 1,800 BC. C., but this topic will be discussed in the second volume of this work.

Until less than 20 years ago, Indochina was assumed to be a region merely receptive to older Chinese influences, with little or no Indian influence prior to Hindu spread over Indonesia in

times slightly after the Era. But in the 60s a radical change occurred, due to a series of archaeological discoveries made in Thailand. There, along with ceramic pieces, appeared the oldest expression of agriculture in the world, surpassing by at least two millennia the oldest agriculture of the Near East, considered original throughout the world. Jointly, Indochinese metallurgy, supposedly of Chinese influence and not long before,

THE USE OF THE MYCENIC PANTS IN JALISCO, MEXICO.
After H. von Winning, The Shaft Tomb Figures of West Mexico, pl. |. Height 18
inches. It represents a musician with a double-tube flute. The small pants he wears are
interesting, which look like one of our swimming pants, whose shape appears the same in Mycenae
and Indochina. These shorts do not appear in other places in America that we know of.

at most, 500 BC. C., dates back to 2,400 BC. C., through the analyzes of C-14, and already with knowledge of bronze, which appeared in China 900 years later. These discoveries changed the entire face of the world's prehistory, but there are many researchers who have not yet accepted this fact.

Unfortunately, the archaeological knowledge that we have so far about the Indochina-Indonesia region, with respect to the period in question, has not yet increased in the same proportion. These are insufficient to be able to make serious comparisons with respect to the migrations that then should have occurred towards American lands. We find many current or somewhat less ethnographic survivals from that period, but it is interesting to establish the archaeological levels and the cultural groups existing at that time.

these.

During that time, intensive trade with the Persian Gulf and Mediterranean regions

neo-ancient is manifested in the cited ethnographic survivals. We will start with a clear example; No matter how much polygenic authors try to demonstrate the repetition of simple inventions, of manifest convergent origin, we have the evident fact that the invention of biremes and triremes is not a simple invention, capable of being repeated. An example of this is the episode in which Napoleon III wanted to know how a trireme worked, given that the last ones had disappeared from the Mediterranean more than a thousand years ago and the methods for their construction were unknown. He then ordered a tri-reme to be built on the Seine River. The boat was made, according to the interpretations of the wise men, but the impossibility of coordinating the movement of the oars prevented its operation. Furthermore, the oars of the upper row were, in that reconstruction, twelve meters long.

REPRESENTATION OF A SPHINX IN TIAHUANACO

CLASSIC. Drawing taken from a ceramic from the Classic Tiahuanaco civilization, with a feline body, wings and human head, as well as its feet. From: Diez de Medina, Federico: Tiwanakota Masks. A similar sphinx, without wings, has recently been found in Mexico and belongs to the Olmec civilization.

long and were managed by a single man, according to ancient data. Now, there is no man strong enough to handle a forty-foot oar. It is clear, then, that it was not a simple invention, capable of being easily repeated.

The invention of biremes and triremes was a historical event carried out by the Phoenicians or Corinthian Greeks around 700 BC. C. It was then spread throughout the Mediterranean, and used in Byzantium until around the year 1,000 AD, then knowledge of its operation was lost. But it happens that biremes, triremes and even quinqueremes are used today in part of Indonesia and there, naturally, all the necessary knowledge has been preserved.

to build them. Magellan's chronicler, Pigafetta, describes them in the Moluccas in 1521.

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REPRESENTATION OF GRIFFINS IN AN ASSYRIAN BAS-RELIEF.

They are mythical animals with the body of a lion, the head of an eagle and wings. The representation of these mythical beings dates back to predynastic times in Mesopotamia and Egypt. In Masoamerica they are described (we do not know of any illustration) by the conquest chroniclers, and in the Andean region they appear painted on the ceramics of Classic Tiahuanaco and Nazca.

Its current use is preserved in the Moluccas, in the Celebes, east of Borneo and south of the Philippines; having previously been used in Sumatra. Is a convergent invention possible in such circumstances?

The problem with the oars is simple: the largest ones are about 4 m. long, and are directed downwards at an angle of 45°. Napoleon's wise men wanted to direct them at a much more open angle, and this forced them to give them an impossible length. According to current remains, the origin of these boats is simple: first they were large canoes with a float or outrigger on each side and they were rowed from the sides of the canoe; Then another row of oars was placed on each outrigger, and later, between the supporting poles of the outrigger, a board was placed, and another row of oars was placed there, thus constituting primitive triremes. Then the boat was made a little larger, just over 20 m., and the outriggers became unnecessary, but not

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A GRIFFIN IN NAZCA POTTERY. According to O'Neale, 1937, pl. 57. reproduced by AL Kroeber, Art, fig. 107. Painting of a fragmented glass. The last figure is important, which clearly represents a griffin, that is, an animal combined with features of a bird of prey and a feline. This figure has existed since ancient times in Old Munao, but it became very widespread in the Orientalizing era; It reaches America where it is found especially in the Tiahuanaco civilization. We do not know illustrations of this from Mesoamerica, but the griffins are described by the first chroniclers in paintings from Tezcuco.

GREEK HELMET IN THE HAWAII ISLANDS. Drawing of the century

past showing a man from the Hawaiian or Sandwich Islands, equipped with a leather helmet whose shape in the whole world, only has its counterparts in the metal helmets used by the ancient Corinthians in Greece, in the 7th century BC. No doubt among the Corinthians there were also similar leather ones for the less wealthy soldiers. On the other hand, this form of helmets reached Spain. Together with these, the Greek capes that we present separately have spread throughout Micronesia and Hawaii.

the extra rows of rowers, who were excessively exposed in combat. The result was that all the outrigger gear was collected on the sides of the boat, and thus its final form was reached.

Thus it has been demonstrated that this type of boat then spread from the ancient Mediterranean to Indonesia. Naturally they did not arrive alone; The men or sailors who led them, merchants and pirates, took with them the main elements of the culture then existing in the ancient Mediterranean. The Phoenicians and the Corinthian Greeks, later, brought to Indonesia numerous cultural traits that survive today, or until recently. For example, the cape called chlámi-de in Greek, used until the last century in Micronesia and Hawaii, and the Corinthian metal helmets, imitated in leather and basketwork in Hawaii until the last century. The illustrations show the authenticity of these facts.

In the ancient Mediterranean we are in that

GREEK TYPE HELMETS FROM THE HAWAII ISLANDS. They find each other made of basketry and the last of them is covered with feathers, which is an American reflux in Polynesia. The same ebb occurred with American cotton plants, found in Polynesia. We assume that this influence in Polynesia and Micronesia) was due especially to Greek commercial voyages through South Asia, through the Red Sea, due to the function in Egypt of the colony of Naucratis. According to Julia Lichten-berg, Die waiianischen Kollektionen, etc., tafel LXIV and LXVIII.

moment in the middle of the Iron Age, historic there, and also at the beginning of the period of the great diffusion of oriental elements carried out by the Phoenicians, a period called orientalizing, on which Greece developed, almost two centuries later. classic.

We will now cite a series of cultural features specific to that moment. Some of them are originally quite earlier, since they were present in Crete and Mycenae, but had been lost, then reappearing with renewed strength. Some originate from Urartu; others are Assyrians. In our opinion there are some Hindu, Egyptian, etc. features there, and others whose origin is unknown. What is known for certain is that the Phoenicians were its spreaders.

What is important about this list is that all

AMPHORA OR GREEK CHANT, signed by the ceramist Nicostenes, late 6th century BC Civic Museum of Bologna.
Taken from ARTE/RAMA, Encyclopedia of the Arts, fasc. 17, p. 74. The shape of this little jug is presented in exactly the same way in Inca ceramics, where, in the Quichua language, it is called Macas. The handles are sometimes cylindrical but more frequently flat, among the Inca pieces. An important detail is the black bands that surround the body: the same thing appears in the Inca macas, where these bands are sometimes black as in the Greek ones and other times purple, something that is most common in Cochabamba, where we have found several dozens of ceramics of this shape.

COLOMBIAN GOLD FIGURE FOUND IN PHENENICIA, by Ernesto Renán, in 1861. According to Henri Lehmann, who considers it typical of Chiocha art. It seems Colombian to us but quite old. H. Lehmann assumes that it was taken to Lebanon at the beginning of the last century, without any real proof. We assume that it must be an ancient object, carried by ancient Phoenician and transpacific navigation.

cultural elements that we mention came to

America; Some of them were not widely spread, while others expanded widely. Many of them also have ethnographic survivals in Indonesia or neighboring oceanic regions.

We do not claim that our list is complete; We believe that, at least, it can be doubled. Nor have we attempted to organize the features we present by theme. The numbers we put in do not have a special meaning, just listing them.

1.—Figure of Medusa, with her tongue protruding, ancient Mother Goddess transformed into a terrifying demon by patriarchal religions. Greece, Etruria, Mayans, Panama, Peruvian coast.

2.—Warriors with gorgonian shields. Greece, Etruria, Mayans.

3.—Gorgonic figures with snakes on

the shoulders, ancient in Mesopotamia and Greece. Peru: vision of the Inca Huiracocha, masculinized.

4.—Goddess between two felines, Greece. Mas-culinized: Bolivia and NO Argentina, on bronze plates.

5.—Shields with personal or individual insignia. Greece, Etruria, passage to the Celts and Germans. Mochicas, Incas, Mexico, Red Skins.

6.—Felines with lines like tigers, not known in Europe or America. Greece, Mochicas.

7.—Parasol or umbrella. Its first origin seems to be ancient Assyria. Greece, Indochina, Mesoamerica, Antilles, Andes.

8.—Tunic, short and long; the short so-called "t-shirt" by the Spanish chroniclers in Peru. Hittite-Assyrian origin. Greece, Etruria, Rome, Michoacán in Mexico, Andean area.

9.—Knee-length pants, anterior. Greece, Indochina, western Mexico
co.

10.—Ustory mirrors, concave, made of metal, to light the sacred fire.
Egypt, Phoenicia, Greece, Rome, Indochina,

China 6th century BC C.; before in Chavín in gold; Olmec stone made with iron pyrite.

11.—Metal helmets for the defense of warriors. Assyria, Greece, Etruria, Mochicas, imitated in leather in Mesoamerica.

12.—Sphinxes, griffins, chimeras, etc., fantastic animals, also previous but experiencing a new diffusion. Phenicia, Greece, Etruria, etc. They are missing in China. An Olmec sphinx; others painted on Tiahuanaco ceramics; taps: Mexico, Tiahuanaco,

etc.

13.—Special, slanted, non-Mongolic oblique eyes. Phoenicia, Persia, Greece, Etruria, southern Mesoamerica, Lambayeque, Persian form.

14.—Winged human characters that already existed: .new diffusion.
Assyria, Urartu, Greece, Etruria, Mesoamerica, mochicas, Tiahuanaco.

15.—Tree of Life, previously in Mesopotamia: new diffusion.
Phenicia, Cyprus, Greece, Etruria, Lambayeque, Mayans. *

16.—Drawing of a kind of rope

USTORY MIRROR OF CHAVIN CIVILIZATION,
hammered gold; The drawings on its edge are of the Assyrian type; diameter approximately one span; The two holes in the upper part show that it was worn hanging as a breastplate.

Private collection, Buenos Aires. The background is completely curved and reflects, concentrating them, the light rays. With the name chipana in the Quichua language, Garcilaso describes them, in use to light the sacred fire of the Inti-Raymi (Winter Solstice). The Olmecs, who did not know metals, made similar mirrors from pyrite. The Romans used them to light the sacred fire in the Temple of Vesta, etc.

67

Gold vessel with handle-stirrup, keru vessel and plat the Chimú civilization
and they are given a short antique and with protruding edges, and less of
that kind of ornaments in D.
Recuay, from more than a thousand years before, and the same the short and projecting neck, which is supervi Recuay would be to
accept that American metallurgy is very ancient, and then they are attributed to

Museum of Natural History.

68

rolled with central disc. Distant origin in Sumerian. In Assyria, intensely, Greece, Mexico.

17.—Intense copying of metallic forms in ceramics, which already existed in Urak, in Mesopotamia, around 3,200 BC. C. New

diffusion. Greece, Phoenicia, Etruria, Rome, Mesoamerica, Andean area.

18.—Funeral scenes painted on ceramics. Before, in Mycenae. Greece, geometric and orientalizing period, Mochicas.

19.—Copy of ceramic wall paintings, probably through the copy in embossed Phoenician gold and silver fountains. Greece, Etruria, southern Mesoamerica, influence on the Pueblo Indians. Heroic and mythical motifs. Mochicas.

20.—Copy of woven ceramic motifs, both geometric and animal friezes, copied in and from architecture.

Some floral motifs. They existed previously. New diffusion from the Neohittite art of Syria, brought by the Phoenicians.

Greece, Etruria, Mesoamerica (even in architecture), Mochicas, Nazca, Tiahuanaco, etc.

21.—Thin incision to mark the

oo source, also in gold, from the North coast of Peru. These pieces are always attributed
d from around 1300 AD, but the stirrup-Chimú vessels never have that neck
lieve. Specifically, these relief ornaments correspond to the Vencia Chavín culture. But recognize that these
vessels are erior. American Parts

figures in ceramics. Corinthian Greece especially, Mochicas, etc.

22.—Ceramics with cartoonish modeled human figures. Cyprus (since before). Greece, western Mexico, Mochicas.

23.—Ceramic plates with scenes with foot, that is, not arranged on its center, something that did not exist before. Greece, Etruria, Mesoamerica, English Columbia (on slate plates), Panama, Peru.

24.—Drawings in ceramics (and in architecture) of waves and rolled waves, which in Spanish are called posts in architecture.
Greece, Etruria, Mesoamerica, Mochicas, etc., NOT Argentine.

25.—Various forms of ceramics, such as the small jugs called macas in Quichua, with metallic copy handles and horizontal purple bands. Greece, Etruria, Incas.

26.—Meanders or fretwork, copy of painted textiles on ceramics. Greece, Etruria, Mesoamerica, Andes.

27.—Rithón vessels, kernos, etc. (see figures); The former were originally horns, the latter with multiple vessels.

Shapes already made in metal and copied in ceramic. They are previous. New diffusion.
Persia, Greece, etc., Mesoamerica and the Andean area.

28.—Caryatids, first in furniture legs, then in architecture. Greece, etc., India later, Olmecs already in architecture. Mayans.

29.—Large ceramic statues, life size, especially the scene of an old man with a young girl. Greece, Etruria,

Mayans.

30.—Atticurgas doors, that is, narrower towards the top. Greece, Etruria, Incas.

31.—Doors and vaults with false arch, the false arch is very old, already Sumerian, but it was used for tombs, gutters, etc.; the Assyrians develop that (along with the bow and

the true vault) outdoors. Mycenae. Mayans. Andean chullpas,
in adobe; incas

PRE-COLOMBIAN GOLD FIGURE FOUND IN PHENICE, by Ernesto Renán, in 1861. According to Henri Lehmann, who vaguely compares it with pieces from pre-Columbian Panama and Costa Rica, while assuming it was taken to Phenicia at the beginning of the last century. We believe that it may have arrived in Phoenicia in the times of the Era, or before, carried by transpacific navigation.

32.—Aqueducts, already earlier, but they were greatly developed in Assyria, Greece, etc. Mesoamerica, Andean zone.

33.—Metal staples or keys in archi- tecture. Assyria. Greece. Tiahuanaco.

34.—Theaters or stadiums, called "ball games" in Mesoamerica. Greece, etc. Mesoamerica. Incas.

35.—Battlements with central opening and three steps, various variants. Assyria. Teoti-huacán, with the same variants. Tiahua-
what for.

36.—Very important: the plan of the palace of Sargon II in Khosabad, built in the years 711-707 BC. C., is reproduced exactly in the so-called Palace of

Palenque, just over a thousand years later. The ziggurat of Sargon's palace is represented in exactly the same place by a four-story tower.

Without a doubt we have forgotten other important elements of the orientalizing period, but we believe we have sufficiently shown the relationships that must have existed then. The lack of knowledge of iron in America, which must have arrived then, was undoubtedly due to the fact that no ironworker emigrated to America.

ro.

As knowledge after the time we are dealing with, reached America by the same transpacific route, we will cite a few here:

1.—The Roman balance, perfected by Archimedes in Syracuse, Hellenistic period. North coast of Peru.

2.—Count of a leap day every four years on the calendar. Hellenistic Egypt, 238 BC. C., Decree of Canopus. Mesoamerica. Tiahuanaco. Incas.

3.—Triumphal arches made up of three arches. Rome, after the Christian era.

Mayans.

4.—Geocentric conception of the universe, with the Moon, the Sun and the planets arranged in the same order. Greek, then Hellenistic, science that was completed in Alexandria and Persia. Mesoamerica, according to the new interpretation of the Aztec calendar that we give later. Peru.

5.—Account of the distribution of time and space, the year and the circle, in 360°,

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SCULPTURE OF A CERAMIC WARRIOR, from Western Mexico: with a helmet and cylindrical armor, while holding a mace whose end is broken, but which was possibly shaped like a metallic copy star. Epoch

indeterminate, possibly prior to the Era. This culture, in the form of many of its ceramics, is quite similar to that of Vicús-Pabur on the northern coast of Peru, but it lost metallurgy locally, due to the lack of the arrival of a smelter, but in stone and ceramic objects it preserves numerous metallic forms similar to those of Vicús were copied. From "THE UNESCO COURIER".

minutes and points count. Mesoamerica.
Peru.

Convergences in such a degree of scientific knowledge?

A final comment. The ancient Mediterranean in the orientalizing era not only received the elements brought there by the Phoenicians from the Near East, but also others that came from India, Indonesia, and even from the Olmecs. We will mention two of them: the classic Greek cloak would be of Hindu origin, and has no possible antecedent in Europe. Then, between 700 and 500 BC. C., the form of ear decoration called pacu in Quichua appears, undoubtedly worn by the Phoenicians, that is, what the Spanish called orejón. Its origin seems to be very ancient in Elam or Mesopotamia, but there it was small in size; in the East it became larger, and thus it reached America, towards the

THE OLDEST KNOWN TRIANGULAR PONCHITO. Seal from the Indus Valley, showing an ancient oldest representation of Siva. On its sides you can see: an elephant, a rhinoceros, Cardinal points. The god wears a triangular ponchito that later obtained its maximum Teotihuacan.

1500 BC C., constituting the distinctive feature of most of the ancient American nobility.
It subsists today in Burma, for example. The pacu appear in Cyprus, Greece and Etruria, well represented, at the time expressed, and not

They existed then in Urartu, Assyria, etc., so their origin had to be from southern India or more probably from Indonesia. It also appears in Africa until the Zulus (see illustrations).

Chapter II

The bases of our interpretation. Dr. Rowe's anti-diffusionist criticism and a broad ultra-diffusionist response.

1.—Comments on diffusion and the comparative ''criteria' used to test it; contrary interpretations.

The way in which the diffusion of cultural traits occurs seems difficult to understand for researchers, and even for professional ethnographers. The first thing to check is that it is not the cultural traits that are spread alone, but rather it is the men who spread them. This is not a play on words: without human diffusion there is no diffusion of cultural traits, and this human diffusion occurs in various ways. The most important of all is the continued exchange of production between different human groups, an exchange that is generally in the hands of a small group of one of the towns in question, and that is directed to another or others, there are even towns specialized in it; That small group, no matter how primitive their situation, constitutes a group of merchants. Naturally, there are also, although not the most frequent, human migrations that can carry their cultural products and even their culture as a whole to great distances, but the permanent and continuous action of the merchants is more important due to their constant functioning.

They can have great relevance in the dissemination of important cultural traits, even isolated individuals, such as people who have escaped from justice, who arrive in distant lands where they marry, transmitting their knowledge; Also the merchants "anchored" in some places, due to the impossibility of returning to their homeland, or because they liked the place, must have had great importance in the dissemination of many of these traits, especially those who developed some activity. artisanal life.

Therefore, a cultural trait never spreads alone: there is no person who does not know hundreds of facts or cultural traits that cannot be taught (if the local inhabitants want or can learn them) in the most disparate and unrelated directions. each other. There are things without relation to each other; and, at the same time, there is no person who knows all the features of their culture, so that dozens, even hundreds of people emigrating together are required, so that a culture can be transmitted in its entirety. And even so, numerous modifications undoubtedly occur in the new environment, due to the influence they receive from their inhabitants and their culture, no matter how primitive it may be. Since they know the environment and its natural productions better, and consequently influence the new settlers.

The first thing we have to know is what what we call culture consists of and its corresponding features or facts. There are countless explanations and definitions about it.

For us, culture is, above all, the tradition of knowledge that the people or person in question has, including unconscious knowledge, such as, for example, moral beliefs and worldview.

Now, every culture has a series of basic features, most of the time semi-unconscious in its bearers, since these are beliefs felt as the real basis of things, so their study is not easy, and even less so for people of Western culture, accustomed to seeing theirs as the only true one, and the rest as ignorance or ancient ways already surpassed by their culture.

Therefore, here we will try to deal, above all, with the material features of cultures, that is, their inventions and discoveries,

that are translated into direct objects and knowledge; But this topic is not so simple, since it is not well known what an invention, a discovery and an application of knowledge is.

In general terms, the first interpretation of the development of inventions and discoveries usually considers the simplest as the most primitive and ancient, and the most complex as a later evolution; But to end from the beginning with this type of interpretations we will make a quote where it is clearly demonstrated that, on many occasions, if not the most, the facts happen exactly the opposite:

DEPOCYTODELIMIGA

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THE "COLLCAS" OR INCA DEPOSITS to preserve the harvest of agricultural taxes. Drawing by Huaman Poma. Two rows of circular tanks with a clay vault roof are represented, although in the drawing it appears to be made of straw. The foundations were made of stone and the walls were made of adobe. The famous and discussed thousand-odd "mounds" of the Campos de Lerma, in Salta, are the foundations of this type of deposits, according to what Fr.

Cobo and we have verified it many times in Bolivia.

"It is tempting to compare European lyres with the only type of lyre still known in Asia today, especially since their players, the Ostyaks and Voguls of the Obi River in western Siberia, are Finnish people related to the European Finns who use a bow lyre. The instrument has five strings and is tuned

Ceramic modeled in the shape of achira roots, height 200 mm. The style and color resembles Nazca, but the modeling corresponds to the cultures further north, especially Mochica. Rosario Historical Museum.

diatonic, generally in a penta-cordio major, sometimes in a minor.
Both hands play on the front of the instrument; The melody is plucked with the left hand, while the right hand plays an accompaniment on two high strings. Plectrum is not used; but sometimes the nails of the right hand strum the strings like the Greek plectrum."

"Thus, the Siberian lyre is the vestige of an instrument rather than a prototype. While the strumming nails are remnants of a vanished plectrum technique, the two playing hands on the front of the recumbent instrument indicate a complete departure from the lyre. The accompaniment on two high strings is characteristic of the classical way of playing the Hindu vina, and the modern names of the Siberian lyre come from Sumerian and Babylonian words; The ostiac naresyuh or "musi-cal wood" derived from the Sumerian nar, "musician," and the vogul sangkultap, or "ringing," from the Babylonian zaggal, or "stringed instrument." "Both indications point in the direction of the south."

(Sachs, Curt, Universal History of Musical Instruments, pp. 255-56).

There is something evident in what we have just said: an invention, when passed to more primitive peoples instead of progressing in its development, can suffer a setback, and this, contrary to what is generally believed, is one of the most common throughout human history

na. It also happens that, frequently, the feeling

Strange current ceramic vessel, glazed,

formed by a central cup, with a foot, and surrounded by six small vessels in its upper part that communicate by small tubes with the central container; There are variations on this general form. These vessels are made today in Cochabamba and are used by the indigenous people in agrarian ceremonies, putting chicha in the center and liquor or alcohol in the vessels, and sucking through the spout (broken in the present piece) that is seen on one side, so that when you sip a kind of cocktail is formed. It is survival of ancient ways. Ibarra Grasso Collection.

The simplicity of a certain trait is not primitive, but obtained by simplification of a more complex process.

Dr. José Imbelloni, when dealing with the issue of diffusion, in his work Epitome of Culturology, exposes two basic criteria (in addition to other secondary ones) to compare cultural traits. These criteria would serve to exclude, in the comparisons, possible convergent inventions, corresponding to elementary inventions. In this regard, we do not recognize the existence of any kind of elementary inventions, as we will see.

These basic criteria are: the Form Criterion and the Quantity Criterion. The first deals with individual traits, the second with sets of traits, which are found in the same places.

Imbelloni begins by telling us what if:

“Form Criterion

"5. By means of this criterion it is understood to ensure that the correspondence between two utensils, beliefs, customs, etc., is established, no longer on the basis of a cursory and impressionistic comparison, but of a mature analytical judgment capable of excluding as far as possible. possible personal appraisals and

the causes of error...

“Requirements of the form criteria are the following:

"1. That the object of comparison, be it an element of material culture (weapon, instrument, ornament, etc.), or of mental and social culture (ceremony, belief, game, etc.)

be defined exactly, and not generically.

"2. That it is not an elementary and simple invention, but that it is made up of several components. The more conclusive the analytical comparison will be, the more complex the shape characteristics of the object studied...

“En lo required strictly by the criterion of form, reserving the questions

DEVELOPMENT OF A BOTTLE OF THE NAZCOID CULTURE OF BOLIVIA, according to Posnansky. This culture, shortly after the Era in Cochabamba, has relations with the Nazca and Recuay cultures of Peru, in addition to Paracas survivals. Its polychromy is extreme, as is only found in Nazca. A derivation of it forms the Draconian culture of the Argentine NO. The figures represented in it are complex and very varied, their comparative study still lacking.

“4, Are the same formal details and characteristics present?

“5, Who was the one who manufactured it?

“6. What manufacturing technique has been followed?

"Also the nature of an object (weapon, instrument, etc.)
imposes a certain number of formal characteristics, which are
essential to achieve its practical purpose. A hammer is always
a hammer, an arrow always an arrow, a nail

Three large, highly polished balls, the largest measuring 120 mm. I always use a club, in all places
unknown, undoubtedly religious, as we indicated for a piece l. ; i >

similar from the Museum of the University of Tucumán. Land Museum; That is, all
Sacred Heart College. Tucumán. arrows and clubs have a morphology

general obligatory. These considerations

5 and 6 for material objects, it remains to weaken any comparison made between

ask: : ask
simple elements, and the modern ethnologist "1, Is it made of the
same mate- is under the duty to avoid them. Luckily it's rial? very abundant number of inventions

specialized that exclude all suspicion of Elementargedanke"
(Ob. cit., pp. 58-3. Is it equally structured? 61).

"2. Is it the same way?

CONVERGING ELEMENTARY INVENTIONS

What is an elementary invention, which can be carried out numerous times in human culture without relation to each other and without the need for background? We answer that all inventions are complicated with respect to the human culture of the moment: the man who first invented tying a stone point to his spear (which until then had only a wooden point made by sharpening the shaft) , must have had very few imitators at first, since it would be difficult even for the compression of his tribemates to do such a complicated job. And so on everything related to primitive inventions. Therefore: What is an elementary invention?

In reality the problem is very complicated. It happens that we are facing a true Imago Mundi, within which these "convergent inventions" are admitted, and for this reason it is not necessary to prove them, it is enough to say them, due to the fact that they are in accordance with the type of thought resulting from that primordial Image. Things that do not enter decisively and immediately within that Image of the World, they are left aside and not even cited, as is the case with the Roman terracottas found in pre-Columbian Mexico.

Consequently, within that interpretive image, it is not necessary to prove anything. The indigenous American civilizations are assumed to be of independent creation, due to the innate nature of man in all the regions in which he is found. No kind of proof is necessary: the proof is provided by the previous image.

If the interpretation agrees with it, it is proven, if the interpretation contradicts it, it must be considered false in principle.

The idea of elementary inventions is a creationist idea, since it proceeds without considering the background necessary for the realization of the invention in question. If it were a truly scientific idea about the case, it should have presented us a long time ago with a series of rules or laws about which inventions can be made independently, and which cannot, while pointing out the necessary background in each case; but that would have been to open a door to the discussion of the truth of his Imago Mundi and, prudently, it has been preferred not to do so. Religious interpretations proceed in the same way.

LIKE THE SNAIL BECOMES A DRAGON

The sea snail is represented often in the Moche ceramics. but the imagination poetics of artists often makes him suffer fantastic metamorphoses.

A) Realistic drawing of the sea snail.

B) The mollusk has acquired legs, a serpentine tail and a forked tongue.

C) The shell has

turned shell; in the

And a head now emerges from the
tip of the tail and claws have appeared
on the legs,
D) The covered body

of scales, the deadly and fearsome
teeth; here is the last transformation,

that offers us a

fabulous monster.

A TYPICAL INTERPRETATION OF DEVELOPMENT AT THE SITE.

According to Peveril Meags: Riches of yesterday and tomorrow. On the desert coast of Peru. The explanation given in the title and the following text seems very clear and evident, but it fails in one detail: The antiquity of the pieces in which these Moche paintings appear has not been studied, and it is evident that the oldest of them is the C due to the presence of the head in the tail, something that had to come from the Ancient Mediterranean or Persia. The first two fissures are later simplifications, the last is the typical reloading of the final Moche period. In Mochica I, in other paintings, the head appears on the tail but the snail that has been added here is missing; That piece probably corresponds to a Mochica III.

As has undoubtedly happened with other researchers, these premises of Imbelloni hindered our research for years, despite the fact that they do not correspond to the ideas of a “timid” diffusionism, not ultra-diffusionist like ours. Currently we affirm that they are all

wrong and we believe that Imbelloni himself would admit this.

TABLE OF THE “EVOLUTION” OF STONE AXES IN ECUADOR,
according to R. Verneau and Paul Rivet, in Ethnographie Ancienne de L'Ecuateur.
The evolution is made from a Neolithic, or Celtic, embedding axe, and from there even the star puzzles would derive, as can be seen, from the end of the process the copper and bronze axes would derive. The entire interpretation is arbitrary and false, since the stone copies of the metallic forms are completely ignored, and the

“impoverished” copies in stone.

In the analysis that we are going to present below we will go from the simplest to the most complex: a hammer is not always a hammer, since a pebble used to drive a nail has no resemblance to what we call a hammer today. ; An arrow is an invention, and no matter how much it has subsequently been differentiated in details, it has a common origin; A club is something different if it is a stick used by a pithecanthrope to hit a neighbor's head, or if it is a war's mace.

HOW HJ SPINDEN “GOT RID OF” THE ELEPHANTS OF MAYAN SCULPTURE. Drawing taken from J. Imbelloni: The Indiana Sphinx, figs. 33 to 35. In several ancient Mayan sculptures, especially in Copán, Old Empire, there are quite clear representations of elephants; They were compared by Elliot Smith with those of India, but Spinden interpreted them as an evolutionary series of stylization of the

head of the blue parrot. as seen in the following illustrations, and that was accepted by the supporters of independent inventions because this way the problem was eliminated.

A DIFFICULT EGYPTIAN PROBLEM SOLVED BY AN INDIAN FROM BOLIVIA:

It is assumed that the ancient Egyptians did not know how to multiply, which they made up for through a series of successive additions. Abel Rey, p. 194 of his work, he presents us with an ancient Egyptian multiplication problem, well solved and not easy to obtain by addition:

“This is one of the most disturbing. The problem has arrived to us in a very poor state of conservation. Its enunciation (Rodet) has been established by a type that we also find in all primitive arithmetic and in folklore. It would be next.
We have seven houses; each one owns 7 cats, each cat eats 7 mice; each mouse would have eaten 7 ears; each ear would have produced 7 hekat of spelled. What is the total of all these numbers? It is, therefore, about finding the fifth and last term of a geometric progression that has the number 7 as its first term.”

The result is 16,807. The Egyptians solved it although we don't know how. manner.

We were interested in the problem years ago. While in an Indigenous School, we posed the problem to an adult, illiterate indigenous person who naturally did not attend school. He made himself repeat the problem to understand it well, then he brought a plate full of corn and placed the corresponding groups of grains on the ground; then he counted them all and got the exact result. It took him a little more than half an hour to do it, but he had no difficulty in obtaining the exact result, as noted.

rra with a head of bronze or iron. Similar usage does not indicate a similar obligate morphology.

But the basics of the topic and the most important thing for us are the six transcribed questions. In the first of them—is it made of the same material?—the error lies at the very basis of the question.

When we read the aforementioned work by Imbelloni, there were two teapots in our parents' house (questions 1, 2 and 3); one was of black glazed ceramic, the other of the alloy called white metal; Both were exactly the same in their shape and structure, but the material was different and naturally so were their manufacturing techniques, but given the shape, there was no doubt that the ceramic one copied the metal one, since all the details were the same (question 4).

Undoubtedly, he who manufactured one did not manufacture the other, but the relationship between both and their common and unique origin in the metallic form was indisputable. Despite this, Imbelloni's “scientific” demands did not allow us to fully develop our observations until much later.

eT yee ey OE As for the Quantity Criterion, with it . Sculptural ceramic from the: North coast of Peru, representing a warrior equipped with a

helmet, similar to the current ones, possibly made of leather that comes to consist of but that reproduces ancient forms of metal. Height 230 mm. The form theory. We confess that The person's face, and especially the nose, show a h lo from 1 A SE í

individual who has nothing mongolic about him. Big ears to reject it from the beginning its sides. Rosario Historical Museum. N? 1,475. based on one of the examples that the p

BEAUTIFUL STONE PIPE FROM MEGALITHIC CULTURE FROM COCHABAMBA, shortly before Christ and undoubtedly influenced by the Sauces culture. It measures 42 cm. tall and undoubtedly served primarily religious uses. It is one of the best pipes found in all of America, and we only know of a superior one from the United States. Archaeological Museum of the University of Cochabamba, from where it was unfortunately stolen about eight years ago.

Imbelloni da nos al respecto y que trancribi-
don't:

“This is how Pinard de la Boullaye presents the criterion of quantity in a simple and graphic way: “If the abstract possibilities are taken into account, the blacks of Dahomey could well have reinvented the Lebel rifle on their own; but if we also find the Bange cannon in his hands, will he persist?

Do we believe that they have had no contact with French technique? The test will always continue to be more effective if the similarities occur in fields that have no inference from each other.

Will we hesitate, by chance, to assign to the people of Dahomey French culture, if it is found there, along with the weapons already mentioned, also the stories of Perrault, the fables of La Fontaine, and even more, the procedures of a Parisian chef?” (Ob. cit., pp. 69-69).

Those examples were absolutely counter-productive for us. If in today's Dahomey we find these cultural elements,

THE EAGLE DEVOURING A SNAKE, SYMBOL OF MEXICO, IN COLOMBIA. According to LA Acuña Cultura of San Agustín, in the South of Colombia. It is a beautiful, very naturalistic representation that gives an “Olmecoid” impression. The same scene exists in Old World motifs, and possibly is not rather than an older form of the ancient Mesopotamian lion killing a bull motif, etc.

We would admit there an influence of French culture, but not French culture itself.

But the main thing in this quote is the first example: the claim that the Dahomeyans, “if the abstract possibilities are taken into account,” could reinvent the rifle on their own.

Lebel. This is impossible, since in no way can the Lebel rifle be considered a simple invention, or Elementargedanke. To invent it, the Dahomeyans would have had to have had a whole series of knowledge

previous ones, which they evidently did not possess.

Following this idea, we looked for elementary inventions that could be made independently, without the need for background, and it happened that we did not find any. The discoveries, and certainly not all of them, not even most of them, could be made independently.

Borgia Codex, according to Seler, plate 56. The gods of life and death, cast by Quetzalcoatl as the god of life, and Mitlantecuhtli, represented in the form of a skeleton, c

toothily, but true inventions, which mean acts of creation, could not be repeated independently. The problem, then, centered on trying to adequately discern one cultural trait from another.

2.—Inventions, discoveries and applications of knowledge according to various authors, and level of origin of indigenous civilizations.

“Never has a work of art been made by a committee of artists, nor has a great discovery been made by a committee of scientists,” said Alexis Carrel, later adding: “The syntheses that we need for the progress of our knowledge of ourselves must be elaborated in a single brain.” We repeat these words because they correspond to our ideas.

Unfortunately, we still do not have any kind of sufficiently clear definition of what discoveries and inventions are, nor of another fundamental fact attached and that seems to be more common, such as applications of knowledge. In general, even among scientists, these three kinds of facts are often confused into one.

In favor of the possibility of the existence of convergent or simultaneous, polygenic inventions, we normally resort to talking about the psychic unity of humanity. Elliot Smith has some beautiful paragraphs about it, demonstrating that this idea is of philosophical and not scientific origin; but since this author is not well regarded by colleagues, we will quote here from another researcher, Dr. Robert M.

Lowie, certainly a polygenist with respect to the origin of inventions, but who, however, when dealing with the subject is neglected and manages to give us a good definition, contrary to the alleged psychic unity:

“Psychic unity.—If diffusion cannot be understood without the mental processes of those who receive it, the same occurs with regard to the law of causal succession. Only in the case that human groups, therefore

At least in general terms, they are similar with respect to their psychology, similar results will be produced from the same causes. On the other hand, for diffusion to take place it is absolutely essential

ONE OF THE CALLED “PALMAS” TOTONACAS, coast of the Gulf of Mexico, made of andesite. Of interest are the artistic details of the representation and expression of the face, which corresponds more to Western civilization than to everything that is supposed to be typical pre-Columbian. Photo and authorization from the Museum of Man, Paris.

existence of a certain “psychic unity of humanity”, since when borrowing a cultural element the group has to capture what it receives.

“Therefore, psychic unity is a basic presupposition to any

theory, and precisely because it is fundamental to all cultural events, it cannot explain special phenomena such as the sporadic emergence of similar or analogous elements in distant areas. If cross-cousin marriage, which exists in Fiji and central California, is

AMERICA

% FROM NORTH

q

The Indigenous Art

Chinese influence

IS woe

and >

Nordic Influence

and Irish 4 There is No Influence

h Native American $
On ;
P

| BN
is So Influence A *6 we
Mediterranean

'(11) No California Influence

Bagatas transported to Polynesia
Type: Sanguine groups close to the American Indians

AUSTRALIA

q DIRECTION OF PREVAILING CURRENTS AND WINDS

Ca CULTURAL INFLUENCES

No influence from
Australia

Until PO UY

influence
Asian

AMERICA

FROM THE SOUTH
SOON influence
Asian (4) No influence

from America

There is no influence

Not

PRE-COLUMBINE CULTURAL RELATIONS OF INDIGENOUS AMERICA, according to GF Carter, in Man and Influences from the Ancient Mediterranean, marked with the N25, still seem doubtful to us. In 8, from the Andean coasts on the Solomon Islands, etc., it seems to us an extraordinary success to For us, the ceramics with handle-stirrup from the Fiji Islands would be a derivation of

Salinar culture.

due to psychic unity, we would have to assume that, due to their mentality, these Californians are more similar to the Fijians than to the inhabitants of northern California, which would be nothing more than an absurd assumption. That is to say, that psychic unity is useless to interpret the peripheral facts of the history of culture, being rather a general postulate for all of them" (Lowie, Cultural Anthropology, page 356).

If this psychic unity existed, the same inventions and discoveries should have been made in all peoples of the same cultural level; but we know for a fact that that did not happen. Thus, for example, if this unity existed, the people of Tierra del Fuego should have invented clothing appropriate to the climate in which they lived, more or less similar to that of the Eskimos; But the Yámanas from the south of that island were content only with wearing a fox skin placed on the side from which the wind came, and most of the time they went completely naked. In the same way, the need to hunt did not lead the Australians to invent the bow and arrow, which was very useful to them.

would have been, and that despite the fact that in many other elements they far exceeded the general level that this invention supposes.

We transcribe a list of supposed convergent inventions, which we take from a posthumous compilation by the author, AL Kroeber, entitled: Anthropology: Culture Patterns Processes, 1963, page. 150.

Some simultaneous discoveries and inventions.

“Telescope: Jansen, Lippershey, Retius.

"Manchas solares: Fabricius, Galileo, Harriott, Scheiner, 1611.

“Logarithms: Napier, 1614, Búrgi, 1620.

“Calculus: Newton, 1671, publ. 1687; Leibnitz, 1676, publ. 1684.

“Problem of the three bodies: Clatraut, D'Alembert, Euler, 1747.

“Nitrogen: Rutherford, 1772; Scheele, 1773.

“Oxygen: Priestley, Scheele, 1774.

“Water is H,O: Cavendigh Watt, 1781; Lavoisier, 1783.

A VERY LITTLE MONGOLIAN SOVEREIGN

In European stories about China and the Mongols, and the same in Chinese drawings about Kublai Khan, this ruler is represented as a perfect Mongol, with slanting eyes, a beard and mustache with few, hard hairs, etc. But Marco Polo, who knew him for years, has left us the following description of him:

'Kublai Khan is of medium height; All parts of his body are well proportioned, as is his entire figure. The color of his complexion is light, and through it shines the rosy of her cheeks; He has beautiful blue eyes and a robust, curved nose. He is descended in a direct line from Genghis Khan, the first ruler of all the Tatars. He is the fifth monarch and came to the throne in 1256. He obtained sovereignty due to his great courage, ability and intelligence, despite the fact that his brother and other members of his family disputed it."

The emphasis is ours. The description given does not show any Mongolian features (consequently Genghis Khan should not have them either), and at first it seems to correspond to a Nordic racial type, but the feature of the curved and robust nose clearly leads us to an Assyrian type, where blonde and pink individuals were abundant.

"Barco de vapor: Jeuffrey, 1783; Rum-sey, 1787; Fitch, 1788; Symington, 1788.

"Theory of planetary perturbations: Lagrange, Laplace, 1808.

"Pepsina: Latour, Schwann, 1835.

"Telegraph: Henry, Morse, Steinheil, Wheatstone and Cooke, circa 1837.

"First measurement of stellar parallax:

Bessel, Handerson, Struve, 1838.

"Planet Neptune: Adams, Leverrier, 1845.

"Surgical anesthesia with ether: Long, 1842, not considered; Jackson, Liston, Morton, Robinson, 1846; NO, Wells, 1845.

"Variations in sunspots, their correlation with terrestrial disturbances: Gauthier, Sabine, Wolfe, 1852.

BRONZE INSTRUMENTS OF PHARAON EGYPT. According to J. de Morgan: Prehistoric humanity the axes numbered 1 to 5; The first shows the way to tie it, identical to that of the similar ax, from the oldest Egypt, which does not appear in America; the third shows the fo 1,800 BC in the Andean zone (it was also copied in stone in Egypt). the fourth and fifth They also exist.

“Natural selection: Darwin, Wallace, 1858.

“Periodic law of the elements: Mende-leyev, Meyer, 1869.

“Telephone: Bell, Gray, 1878.
“Phonograph: Cros, Edison, 1877.

“Liquefaction of oxygen: Cailletet, Pic-tet, 1877.

“Rediscovery of the Mendelian laws: De Vries, Correns, Tschermak, 1900 (respectively, March 1, April 24, June 2).

“Polo Norte: Cook, Peary, 1909.

“South Pole: Amundsen, December, 1911; Scott, January, 1912.

“Orientation of bats by their reflected screeches: Criffin and Galambos, EU, 1941-42; Dijkgraat, Holland, 1943 (total separation of communications during the war years).”

This list is a real incoherent mix. between discoveries, inventions and applications of knowledge, as if they were a single thing. The discovery of the Poles is even considered an invention.

Only a quarter of what is mentioned are inventions, and all of them have extensive antecedents.

Arab origin, from at least half a thousand years before. The same goes for most of the ""discoveries"' cited, most of them known long before. Sunspots, like Jupiter's satellites, are observable with the naked eye for people with very keen eyesight and the Chinese mention them several centuries before their "discovery" by Europeans. Anesthesia was known and used by all ancient civilizations, but Christianity prohibited it, because "pain was sent by God"; Today, the indigenous witches of Bolivia and the Araucanians (we are witnesses of this) use the poisonous chamico (Datura) to eliminate pain in the operations they perform, for example in a dislocation.

As for natural selection, Darwin's grandfather already talked about it, so placing its "discovery" in 1858 is not even citing the facts too accurately.

We have to clarify what a discovery, an invention and an application of knowledge is. The latter is hardly mentioned

by researchers, so the very idea of its existence is not common. Now, it happens that we do not know of any researcher who has managed to define these facts well.

We could make many quotes to prove it, but we will limit ourselves to a brief one:

'Without a doubt, RB Dixon is, among the anthropologists of this time, the one who has attempted to define invention most directly.

THE DEGENERATED SPEARHEADS OF LAMBAYEQUE IN SICILY. Fig. 47 from LB Brea, Sicily, bronze and at the end c a degenerated spearhead, transformed into a kind of shovel (Br
the same way in which copper and bronze spearheads appear degenerated in culture.

Brea, numerous other specimens that are not illustrated.

known objects, for example the telescope. Its first invention was made in Italy at least a century before it was perfected and converted into a useful element in 1608 in Holland.

gives. This does not mean that it had been invented only then; Something similar happens with the other cases. Another example is logarithms, He distinguishes discovery, which consists of observing, often by chance, something that has never been observed before and eventually trying to use it, and invention, which consists of intentionally creating something new. Often, from a discovery originate a series of

ANCIENT INDONESIAN BRONZE INSTRUMENTS. According to H.R. van Heekeren, The Bronze-Iron Age (letters A, B, C and F), Celebes (D) and Java (E). For the author they are hoes, except the C that especially the D, whose shape is found exactly the same in numerous pieces of the cu a tubular hafting lance with loss of tip; the same thing happened in Sicily. TO luxuriously decorated, undoubtedly being spears or ceremonial insignia.

inventions…" (Mercier, Paúl, History of Anthropology, page 89) (Underlining).

This is the most developed idea of what a discovery and an invention is, but it is not complete. If a scientist is chasing a new element that his calculations have led him to assume exists, and he discovers it, that is not the work of chance. Conversely, many inventions can be the work of chance.

A long time ago we read Gabriel Tarde's work, The Laws of Imitation, pp. 68-69, and we find the following paragraph to which we gave extreme importance:

**... Every invention is one possible realization, among a thousand, among the different possibles, or rather, among the conditional necessary ones; that the invention, mother from which it emerges, he carried in his womb; and apparently, it now makes most of these possibilities impossible, and a multitude of inventions possible that were not possible before."

This paragraph clarified many things for us. In

At that time we were studying biology, especially the origin of each new species; and the relationship with what Tarde stated, already partially anticipated by us, occurred with the following result: an invention is the creation of something that did not exist before (as Dixon says), and is similar to the creation or appearance of a new species among living beings, which never reproduces. In both cases, according to the necessary existing background, many solutions are possible, but only one comes to fruition.

HUACO MOCHICA WITH A MYTHOLOGICAL SCENE, where a human-hero character strangles an evil being, half snake, half fish. Trocadero Museum, Paris. The scene immediately recalls one of the labors of Hercules, as can be seen in the attached illustration. There are other Moche ceramics that present us with scenes related to the other works of Hercules. According to Hermann Leicht History of Art, Barcelona, 195/3.

crystallize, with which the remaining possible solutions are eliminated, and instead new solutions are subsequently produced.

Every invention must have its necessary antecedents, just as in the appearance of a new living species the previous form that gives rise to it is required. Knowledge applications also need to have their necessary prior knowledge, but they do not create anything new; If they create it, this must be classified as an invention. Simple discoveries can be made without any background, but a scientific discovery cannot.

The polygenist interpretation, or convergent inventions, assumes that an invention can be made without its antecedents, and this responds to a creationist idea (biblical type).

TWO CANAANITE CLAY MASKS, found in the ruins of Hazor in Palestine, in recent excavations. They correspond to the ancient Phoenician culture from the 13th century BC, and used in acts of worship. Their use continued much later, as among the Carthaginians, and they are undoubtedly ancestors of Greek theater masks. In America, masks similar, especially to the first, already appear in Tlatilco in Mexico, corresponding to an Olmec influence. They seem to arrive in Argentina with the Condorhuasi culture, made of stone. As a large number of these masks, undoubtedly the majority, were made of wood, and have consequently disappeared, their diffusion in the world cannot be well followed. According to Yigael Yadin, Some Aspects, etc., in Antiquity and Survivals.

CRETENSE FEMALE FIGURINE AND HER

IMPOVERISHED COPY. Firstly, a Cretan female figurine, from 1800-1600 BC, representing a priestess, in beautiful sculptural expression; then its later copy in the late Bronze Age of Yugoslavia, 34 cm. high, which appears terribly impoverished, despite the short geographical distance from the original source. According to this we can judge the state of transformation in which the artistic objects of the Ancient Mediterranean would arrive in America.

Over the things. No invention can be made without its antecedents, but very different inventions can be produced from the same antecedents, as Tarde says.

The consequence of this is the following: until now it has been asked to prove diffusion, taking the existence of convergent inventions as proven. With our approach to the problem, things are reversed: each invention considered convergent must be tested, and not its unique origin and subsequent diffusion. Now, it happens that there is no rule or criterion of investigation that allows us allows demonstrating the existence of a convergent invention. There is only an interpretive theoretical idea, of philosophical rather than scientific origin, that its existence is possible, but this idea is not demonstrable.

There is an arbitrary criterion, never clearly expressed, that says the following: if any primitive or highly developed invention appeared in pre-Columbian America and somewhere in the Old World, its origin is demonstrated. polygenetic, since there were no relations between both hemispheres and if any other invention appeared only in pre-Columbian America or anywhere in the Old World, it is probably of single origin. We believe that the arbitrariness of this concept and its lack of scientific basis does not need further comment.

There are minimal inventions: for example, if a poet writes a sonnet (sonnets are an Italian invention of unique origin) no one can repeat it without everyone immediately recognizing that it is plagiarism; The same thing happens with a painting representing a scene with a new idea. Others are basic inventions, to which improvement inventions are later added; An example of this could be the machine with which I am writing, and which comes from a first basic invention, but on which at least a couple of thousand improvement inventions have subsequently been accumulated.

Most researchers ignore the above, and treat inventions without considering at all their necessary background, the fact that they are the creation of something new, etc. This occurs both with polygenist researchers and with those commonly called diffusionists, whom we have called “shy”. We are interested, therefore, in distinguishing the ideas of the various types of researchers.

Coming from a philosophical interpretation, it triumphed in the middle of the last century in the

Sciences of Man the polygenist-creationist idea about human inventions and that is the existing traditional Worldview. The timid diffusionist authors maintain the same Worldview in principle, but they want to modify some details. This is how they bring elements of Oceanic, Chinese and Indian origin to America, but without claiming their sole origin, since they accept their polygenetic origin if, for example, they also appear in black Africa. On the other hand, other authors have ideas of a completely different Worldview, since they are monogenists with respect to the origin of inventions, and consequently ultra-diffusionists.

We can make the following classification table:

MAGNIFICENT CEREMONIAL SPEARHEAD IN LAMBAYEQUE BRONZE. Staatliches Museum fur Volkerkunde, Munich, courtesy of Dr. Otto Zerries. Length 155 mm. In Lambayeque and among the Chimue, the spears lost their tips and were transformed into ceremonial objects, with a wide blade instead of a tip, which is why they are usually considered “agricultural instruments” that is, shovels or hoes. Its rich decoration belies this, and its tubular hafting shows its first origin in developed forms of spears.

THE GODS AND SCIENCE

“*... This modern Western process of evicting God to make room for the law was anticipated in the Babylonian world, in the 7th century BC. C., when the discovery of periodicity in the movements of the stellar cosmos seduced the Chaldean mathematici, in their enthusiasm for the new science of astrology, to transfer their adherence from Marduk-Bel to the seven planets. In the Indic world, in turn, when the Buddhist school of philosophy took the logical solutions of the psychological law of karma to their extreme conclusions, the divinities of the Vedic "pantheen" were the most notable victims of this aggressive system of determinism. "totalitarian" spiritual

“*... Our examination has shown that the law that eclipses divinity can take various forms. What enslaved the Babylonian astrologer and the modern Western man of science was a mathematical law; the one that captivated the Buddhist ascetic a psychological law; the one that won the adherence of the Hellenic philosopher to a social law. In it

Sinic world, where the concept of law has not been favored, we nevertheless find divinity eclipsed by an order that appears to the Sinic mind as a kind of congruence or magical sympathy between the behavior of man and his environment. no" (Toynbee, Arnold J.: Estudio de la Historia. Compendio. EMECE. Buenos Aires, 1952, pp. 499 and 500; emphasis is ours).

The author does not tell us, but it is clear, that in all cases what happens is a change of the Imago Mundi, and that has been abundant in the history of culture. Applying this concept to our study, in the 18th century two different types of Imago Mundi began to develop: a diffusionist one (represented by Father Lafitau and Captain Cook, among many others, who compared the cultural facts of the Hurons and the Tahitians, respectively), it is expressed by facts of in situ observation; The second is expressed by several authors of a philosophical nature, who never observed facts but rather thought about them in their study, and expresses the ideas of similar development in each place, independently. "If God created flies in America, said Voltaire, why would he not also have created men there?" This second interpretative idea triumphed in the middle of the last century, when it was arbitrarily united with the evolutionary interpretation of Natural Sciences, from which it took the terminology but not the basic interpretation of the unique origin of living beings and their necessary predecessors. In this way, American science was enslaved to an untested prior interpretive idea.

Polygenism = Creationism: polygenetic humans have been

; partially disseminated.
Human inventions are p

They have done it many times in different places and times, with no relation to each other.

In principle, there is little diffusion;
Those that are intended must be proven (and no proof is accepted).

There are no cultural degenerations, but rather a continuous process of development.

To prove a diffusion, geographical and temporal continuity is required, and even if this occurs, it is not enough.

Timid diffusionism:

Some of the inventions

88

. The diffusion of some specialized inventions, which somewhat modify the previous picture, can be proven between the Asian end and America, via the Pacific.

There are some cultural degenerations or impoverishments.

Proof of diffusion requires geographical and temporal continuity, and that is sufficient.

Monogenism = ultradiffusionism:

All human inventions

They are of single origin with a single inventor and have consequently spread.

There are no convergent inventions; Those that are intended must be tested, and there are no rules or methods to prove it.

The historical process consists, above all, of cultural impoverishment, as inventions pass to more primitive peoples.

No geographical or temporal continuity is required; the missing points will already be found, as is the case with the fossils of human and animal evolution.

By simply drawing the consequences that result from the points expressed in the monogenic and ultra-diffusionist theses, we see that the American indigenous civilizations, due to the majority of their cultural elements that they present to us, must be classified within a very disastrous -Bronze Age passed and with numerous elements already fully from the Iron Age, and even later, arrived thanks to transpacific navigation.

But to finish clearly differentiating both types of diffusionism, we are going to quote the most classic author of the shy diffusionists:

“The archaeological study allows us to delimit the problem of the settlement of America and specify its conditions.

“When the New Continent was discovered, American man, considered as a whole, had not gone beyond Neolithic culture; The few regions in which metals were used did not progress beyond the culture of bronze, and we know with certainty that the discovery of copper and its alloy with tin had been made there and at a late period, that is, about ten centuries AD C., without it being attributable to outside influence.

“The Indians did not know the use of the wheel, nor the potter's wheel, nor glass, nor wheat, nor rice, nor barley, nor

centeno.

“Ignorance of iron, of the wheel, of the lathe, of glass, of wheat, of rice, of rye and of barley; relatively recent indigenous origin and very limited use of copper and bronze are facts that definitively eliminate all hypotheses that suppose intervention, in the settlement of America, of civilized races.

- ized in possession of these various cultural elements, discarding themselves

follow the immigrations of Jews, Tyrians, Phoenicians, Canaanites, Carians, Tartars, Egyptians, Babylonians, etc. They also lead to discarding any relatively recent influence of the civilized peoples of Asia: Chinese and Japanese, South Asians from Indochina and India. It is, in fact, inadmissible that immigrants who knew metals, glass, wheat, rice, barley, rye, the wheel and the lathe, would not have taken them to the new countries they had invaded.

“Given the problem in this way, and given the almost continuity of North America and Asia, it is natural and logical to search among the Asian peoples for the origin of the populations of the New World. This hypothesis is perfectly reconcilable with the premises we have established. We know that the route of the Bering Strait and the rosary of the Aleutian Islands was free of ice towards the end of the Quaternary and that it offered an easy passage between both continents, precisely at the time when prehistoric facts attest to the appearance of man in America. On the other hand, the degree of civilization of these peoples at that time corresponds to the degree of civilization of the primitive American peoples” (Rivet, Paul, The origins of American man, pages 70-72).

A little later, in the same work, Rivet presents us with his well-known interpretation of the emigration of Australians and Melanesians, by sea, to the American continent, but that is nothing more than a supposedly diffusionist interpretative detail. introduced into the whole of the polygenist-creationist worldview. In effect, by eliminating all the civilized peoples of the Old World from possible migrations to pre-Columbian America, the indigenous civilizations of our continent remain of absolutely independent, polygenous origin, and at a level corresponding cultural, barely and with good will, at the end of the predynastic of Mesopotamia and Egypt.

We would ask: Why did Rivet “forget” to include some of the most developed cultural features of pre-Columbian America, such as, for example, the existence of the Roman scale, to which he dedicated a small article?

Simply because that would have made him change his entire Worldview, and it was not possible.

3.—The imitation of metal objects in other materials, especially ceramics, stone,

madera, etc.

It is likely that the greatest novelty that we contribute in this work to inter-oceanic comparisons is that of the existence, in pre-Columbian America, of ceramic and stone forms that copied previous forms of metal, even long before they were created. knew metallurgy in indigenous civilizations.

This is a well-known and accepted fact for the Old World, but it has never been applied in indigenous America, and the reason is clear: the existence of copied forms of metal before metallurgy existed here supposedly

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ne, necessarily, the external origin of those civilizations.

To see how imitations of metallic objects are totally accepted, cos in other materials, in the prehistory of the Old World, we will make a series of citations, which we could easily increase. We start:

Norse Megalithic Culture, Period IV:

“In this period, as we said, the already studied flint daggers were used, the.

which are more modern when they already have a pronounced handle. Then the handles and blades appear, which are undoubtedly copied from metal forms, as can be seen by comparing several Funen flint models, a direct copy of a metal model. It also proves that such daggers are contemporary with the Metal Age, the fact that they never appear south of northern Germany, where only metal was rare and utensils were made from stone. (Soulgro, M., Introduction to Archaeology, pp. 304-5).

Small Mayan ceramic bottles.
According to Beuchat, who takes them from E. Seler (Alterthúmer aus der Alta Vera-Paz), the first two from Guatemala, the third from the valley of the Ulus River. Both its size and shape, and the type of its drawings as printed with seals, correspond immediately to ceramic copies of similar pieces made of glass by the Phoenicians and used especially for perfumes. Its variety of shapes also corresponds to the variety of glass shapes. Figs. 165 and 166 of Beuchat, its center is in the territory of the Mayan tribe of the Chol.

“The culture of Saxony-Thuringia... offers the frequent use of the axe combat, called hammer-axe, which is surely contemporary with Jor-dansmúhl and appears in all the cultures of central Europe up to Remedello in Italy, which is a form of metal transported to stone..." (Ob. cit., pp. 305-6).

Middle Bronze Age, Germany southwest:

“Period I... Ceramics reached a notable development. The vessels with the decoration of serrated and stamped incisions, which begin in this period and continue in the following ones, denote by their technique that they are imitations of wooden and metallic (gold) models...

“In period III... in the pottery of vessels with dents and grooves, a patent imitation of metal ones...

“The end of the Bronze Age, the period of the urn necropolis... Ceramics

CERAMIC BOTTLE FROM THE CHAVIN CULTURE, from around 800 BC As you can see, it is covered by a basketwork wrapper as happens in our glass demijohns. This feature is not typical of ceramics but of glass pieces, which are much more fragile, and consequently it seems evident that it is a ceramic copy of a previous piece of glass and its cover, cast in a single piece. What other explanation could be drawn from this? Private collection, Buenos Aires.

ca, without depending in all cases on metallic models, shows the profile, faceting and decoration of grooves, with an entirely metallic appearance.” (Hoernes, M.: Prehistory. The Bronze Age, pp. 99-101).

Mesopotamia, Uruk period, the oldest known ceramic imitations of metal objects:

“The importance of painted ceramics fades, replaced by another completely diverse one, either by the monochrome red paste, or by the elongated shapes rich in details completely foreign to the nature of the ceramic: such handles in the shape of large eye ribbon and the long and even very long weir peaks. There is no doubt that we are in the presence of models that want to imitate the characteristics of metal glasses. Indeed, if one observes the importance that metal is now assuming for weapons and instruments, it will not be difficult to admit that modern models have existed.

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A MULTIPLE VESSEL, OR “KERNO”, FROM ANCIENT GREECE, SIMILAR TO THE ANDEANS. From Treccani Encyclopedia, volume IX, page. 815, art. Cerno. It was used in religious ceremonies, especially in the Eleusinian cult. The Phoenicians and other peoples. From the Eastern Mediterranean, to Persia, they used this form of vessels. Its shapes are varied, but there is always a central vessel surrounded by numerous vessels connected to the central one. These vessels appear in the Andean region, we do not know since when, and they are manufactured and used today in agricultural ceremonies in Bolivia. Yo

those of metal vessels.” (Laviosa Zambotti, P.: Origin and spread of civilization, p. 248).

Greece, Helladic culture of Macedonia and Balkan derivations:

“The arrival of this new era is also marked by the appearance in Central European sites of a completely new ceramic: the broad, heavy, handleless forms of the Tibisco phase are now succeeded by the elongated glasses with

handles in the form of ribbons raised above the edge and collar cut on the bias. It is the tradition of metal-inspired vessels from Uruk, which is resurrected and belatedly finds its way to Europe. This ceramic tradition had been developing in the Near East sixteen or seventeen centuries before, and had constituted the starting point - as we saw - of the oldest pottery production in Crete, Cyprus, Anatolia and from all over the Aegean." (Idem, page 289).

China, supposed Neolithic, probably the first Chinese Dynasty:

"Along with the painted ceramics, in a not very clear stratigraphic situation and, therefore, not exactly determinable in its chronological value, it is already stated in the Kan-

Its bucaroid monochrome ceramics

black or blackish color and very smooth. Although different from that of Uruk and the ancient Balkan Helladic, it is close to it in its fundamental characteristics, that is, in the

METAL DABS FROM ENGLISH COLUMBIA AND SOUTHERN ALASKA.

According to A. Leroi-Gourhan, Archéologie du Pacifice Nord. Figs. 495, 496 and 497, from Sitka, southern Alaska, recent, in iron; fig. 498, from the Tlingit, southern Alaska, in copper, 18th century; fig. 499, of the Tlingit, southern Alaska, recent, iron. In the region there are many of these daggers, some of which reach 60 cm, that is, they are already swords. They are generally interpreted as being a copy of stone daggers, which due to contact with Europeans were first made by hammer with native copper, and then with iron of European origin. But Captain Cook, who was the first European to visit the region, tells us that the natives possessed iron weapons and instruments of non-European origin due to their shape. The last two forms clearly copy the iron daggers with antennae, the use of which extended from Denmark to the extremity of Siberia. The number 496, with a human figure on the handle, is manifestly related to the Indochinese-Indonesian daggers, and to the tumis of Lambayeque. Consequently, the metal daggers here must have existed long before Captain Cook's voyage, and the stone forms are copies of them. But all that is taken from

above assuming that it is a recent influence europea.

development in height of the containers, whose neck is very pronounced, and in the use of one or two wide ribbon handles, originally clearly inspired by metallic shapes..." (Id., page 359).

Crete, Camares pottery:

“Shortly before 2000 BC. BC, the potter's wheel was introduced into Crete, presumably from northern Syria or Asia Minor, and the potters of the following period—the middle Minoan period—used the machine not for a crude mass production, but to refine their traditional gadgets. It is notable that many of its forms were taken

of metal vessels, which reveals that the richest Cretans were accustomed to using gold, silver or bronze tableware, and later samples that we know, from survival or from scenes in Egyptian tombs, could lead us to think that such

treasures inevitably had to expel clay tableware from the market.

But the Cretan potter was willing to face the competition of the goldsmith. He learned to make pottery with the thinness of an egg, lighter for the hand than anything made of metal, and, faced with the uniform shine of the silver cup, he painted his clay with cheerful polychrome drawings that could not help but attract a people as fond of color as that of Crete;..."

(Woolley, Sir Leonard, The Beginnings of Civilization, pp. 672-73, in UNESCO, History of Humanity, volume 1).

What was stated in the last quote, the “eggshell” ceramics painted in Crete, which place to gold and silver tableware, was exactly repeated in Mexico during the Colony: there a tableware of rich silverware was clearly displaced by Chinese porcelain, brought by 'the galleon from the Philippines'.

We ask ourselves: what origin does pre-Columbian Mesoamerican “eggshell” pottery have?

We continue with the appointments. Palestine:

“A characteristic feature of Middle Bronze II pottery is that practically all of it is wheel-made, since hand modeling is limited to the cheapest types of pots and similar containers.

The shapes are usually very beautiful, with beautifully proportioned curves. A pronounced fairing recalls, without the possibility of error, certain metal prototypes, which were faithfully imitated in clay. The metal impression was reinforced by thick layers of red or cream slip, spread over the surface of the best specimens while they were hard like leather, that is, after firing.

Next, this slip was carefully polished over the entire surface using a stone or bone spatula, until the specimen shone as if it were copper or silver... One of the best-known ceramic types from this period is the pitcher called from Tell al-Yahudiyeh, a single-handled vessel, pear-shaped (piriform) with a button base and forked handle, and with the upper part decorated with a rivet sign (skeuomorphic inheritance of the metal prototypes). .” (Albright, WF, Archeology of Palestine, pp. 96-97).

Greece now, Chalcolithic and Early Bronze: “...In the Aegean, on the contrary, it is affirmed

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MIDDLE BRONZE CERAMICS Il, from the Palestine Museum. What is interesting about them is that Palestine themselves remember "without the possibility of error, certain metallic prototypes, which If these pieces were found in America, all of them would have been considered as belonging

It will be more noticeable than anywhere else, despite the fact that, depending on the places and times, curious alternations between painted ceramics and polished or varnished monochrome ceramics can be observed: it seems that it was the influence of metal fabrications that made prefer in certain

"The Thessalian Neolithic ends with a third phase, called Larisa... a black ceramic, more rarely red, very vividly polished, whose shapes with sharp edges visibly imitate those of metal..." (id. page 32).

We remember for a moment, interrupting

moments the monochrome decoration alongside the finely polished ceramics of painted decoration" (Demagne, P., Naci- Chavín, which agrees entirely with the ment of Greek art, p. 31). saying:

THE ROYAL BADGES: CONVERGENCE?

The interpretation that tells us that inventions can be convergent, simultaneous (at the same time or not) in very different and distant places, has a very weak point, not exploited until now by the "timid diffusionists". This point consists of the joint appearance of several inventions not related to each other, but closely linked in their meaning. This occurs especially in religious events, but we now choose for the example the set of royal insignia.

The royal insignia appear as a homogeneous set, unrelated to each other in its various parts, in all ancient civilizations of the Old and New World. We will detail the main ones:

Idea of the divine origin of kings; throne with felines at its sides, or eagles; litters or litters to carry them, since they are so sacred that they cannot step on the ground (they tabuarian it); use of a scepter (an ax apparently in ancient times); use of purple in the oldest times, widespread, and white in the most ancient Europe

recent (ermine cloak), in a special garment, which only the king can wear; a special headdress: crown, turban, tiara, etc.; a feline or an eagle as a heraldic animal, of the king and the nobility; large fan and parasol as royal insignia, doubled in more recent times, when the parasol became widespread among the nobility; use of jesters, dwarfs, hunchbacks, etc., at court; use of a royal seal (Moctezuma used it, among the Incas it was a red thread from his mascapaycha); etc.

How is it possible to maintain that these cultural elements, unrelated to each other, have been invented independently in all ancient civilizations as a badge of royalty? Why don't entirely different cultural elements or traits appear as royal insignia? For example: nowhere does a glass of special shape appear, from which only the king could drink. Nor does there appear any type of special footwear that only the king could wear, and the examples could be multiplied.

Is it possible to sustain the convergence of inventions in the face of such a series of facts?

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BOTTLE OF TLATILCO CULTURE, MEXICO. These pieces are generally described as “phytomorphic”, but they are a clear metallic copy as can be seen especially by the rim on the top of the vessel, which indicates a weld, as can be seen in pieces from Cyprus and Lambayeque. which we present separately. From: Piña Chan, Román: Tlatilco, volume II, Lam. 46. National Institute of Anthropology, Mexico, 1958. Col. MNA

“Middle Helladic ceramics, in the absence of plastic, almost non-existent, are what mainly signals the rupture of evolution. The series, called minias after Schliemann, are the most characteristic.

_ teristics, unrelated to the Aegean-anatolic of the 3rd millennium, although they may have their prototypes in Hittite Asia Minor. These glasses represent, in any case, the imitation of metal tableware, of which they reproduce not only the gray, yellow or red color, but also the polished surface, soapy to the touch, as well as the shapes. , very prominent, with sharp profiles. As in other moments in the history of ceramics, the influence of metal fabrications led to the disappearance of painted decoration..." (Ob. cit., pp. 80-81).

We could make a dozen more quotes from this author, but that's enough, so we'll make one last one that shows us an overview of the topic:

“The South Scandinavian Neolithic of the 3rd millennium BC. de JC offers the most classic example

MAYA PLUNBATE VESSEL COPYING AN EARLY FORM OF GOLD.
From: Linden-Museum, Kunst der Maya. The m. 78. Old classic, height 16 cm. Collection Jorge and Ela Castillo, Guatemala. The large puffs that this piece presents, as well as its projections at the base of the neck, clearly show that it is a copy of an earlier form made of gold or silver. This is how it would be considered, without possible discussion, if it were a piece of parahistorical Europe. The Mayans at this time did not know any kind of metals.

and perfect of a civilization practically without metal, or in any case without local metallurgy, but whose set of lithic tools has been transformed to imitate the first metallic types of central Europe: in the flint industry, flat axes of rectangular tion, whose heels, thin or thick, both have metallic prototypes, chisels of square section, curved sickles of a single piece, completely foreign to the pre-metallic European tradition, based on the compound sickle, splendid daggers that first imitate the bladed daggers of copper, and then the bronze daggers with triangular blade and cast bronze handle from the Central European culture of Unetica. Throughout Europe, from the Caucasus to the Atlantic and from Finland to the Balkans, stone battle axes imitate, down to the details, the copper prototypes of the first Caucasian, Balcanoan-Tolic, Central European or Mediterranean metallurgy; certain hammer-axes even go so far as to imitate, by means of a raised longitudinal fillet, the burrs that are produced in the casting of metal objects at the joining line.

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ANATOLICAL CERAMIC JUG COPIED FROM METAL. According to U. Bahadir Alkim, Anatolie, volume ‖, fig. 80. Height 46.5 cm, from Kúltepe-Karum; 19th to 18th centuries BC Ankara Archaeological Museum. The copy of a previous metal form is especially noticeable in the shape of the mouth and in the copy of the welding of the neck to the body. Its shape is immediately comparable to that of Lambayeque next door, despite the difference in the shape of the neck. The form of Lambayeque is more evolved due to its shape.

of the two parts of the mold. In Western Europe, as in Northern Europe, the flint imitation of the first copper daggers produced very beautiful pieces, sometimes carved, polished and trimmed, to achieve the thinness of the metal; Ast, the Causses imitate the Langedocian copper daggers in flint, and southern Spain, the Aegean prototypes. In France, it seems that the desire to imitate not only the shapes, but even the color of bronze, justifies the success of wax-yellow flint.

STONE WORK FROM ENGLISH COLUMBIA. According to M. Covarrubias, The Eagle, the Jaguar and the Serpent, fig. 59. Of particular interest is the stone dagger shown above, called the "slave killer", collected by Captain Cook in 1778, which we have seen in a Museum in Vienna (or it was another similar one, possibly): its metallic copy form It is undoubted and valid for the date on which it was obtained. The figure in the center, a human sculpture with a plate, is found in ceramics in Mesoamerica, etc., and is undoubtedly a copy of clay; Below is a stone vessel with an interesting boat, from the Kwakiutl tribe.

TWO METALLIC IMITATION PITCHERS.
Its puffed shape does not imitate pumpkins, as is generally believed, but rather earlier metallic shapes, as

They demonstrate the details of the necks.

Gray ceramic, uppermost 215 mm.; of Tinogasta. Culture Condorhuasi. Adam Quiroga Archaeological Museum. Catamarca.

(melado) from Grand-Pressigny, whose long-distance export only began at the time when the first metal objects appeared. Similar events have occurred in both Asia and Africa; The rectangular-section stone axes, axes and adzes with shanks for hafting from East and Southeast Asia have their prototypes in the bronze industry of northern China; The bronze containers from the same cultural center influence, either by their shape or by their decoration, the ceramic jars from the late Neolithic of southern China or

Japan, just as the influence of the Iranian bronze vessels is perceptible in the

CERAMIC WITH METAL SHAPE. Beautiful light gray ceramic bottle, from the Lambayeque culture. All its details show the copy of a metallic piece of gold or silver, whose shape existed in this culture; Particularly notable are the copy details of the welds at the base of the neck and in the center of the bottle, as well as the annular base and its low-relief decorations. Mabel Castellanos Collection, Buenos Aires.

Chalcolithic pottery from Western India.

In Africa the set of Saharan neck axes has been considered, undoubtedly excessively, as an imitation of the Egyptian bronze axes, but the phenomenon

It is no less evident for certain types of lithic axes from the Sudan and East Africa; Other Egyptian axes, older and in the shape of a semicircle, have their transposition in ivory in the Calculi culture.

Spanish colitic of Los Millares. Such examples could easily be multiplied and show the extent to which Neolithic, Chalcolithic and bronze were closely superimposed, from the moment the vision is raised above the painting. local or descends below the level of generalities. At an intermediate level, the reality of the facts appears singularly more complex and more subtle than a simple theoretical image, which, however, is not inexact in either extreme.

mos of the visual field" (Bailloud, G., Neolí-tico y metal, in Leroi-Gourhan, L., La Pre-historia).

Now, if this occurs in the Old World, where imitations of metallic objects in other materials are so easily recognized, why is the same interpretation not applied in indigenous America for similar events?

Why does our last mentioned author not deal with America at all, in his long relationship? We already know: addressing this would necessarily mean accepting transpacific relations and the external origin of indigenous high culture. If in America there was no

metallurgy that could be imitated in stone and ceramics, but there are those forms of obvious copying, its prototypes must be sought outside the continent and not doing so is an interpretative arbitrariness.

It is convenient to complete the quote from the last author, with our summary of those imitation metal objects in America, and in Oceania, which he also forgot.

In Indonesia, since 2,500 BC. C., stone axes with a quadrangular section appear, which copy previous copper models, similar to those of the Chalcolithic of Greece, etc., and they are later repeated in Polynesia, Micronesia, etc. In Melanesia there are disc-shaped puzzles with a sharp edge, and others in the shape of a star, etc., which copy bronze shapes; They are in current use, without being able to know their first age. In Polynesia and Melanesia, there are wooden vessels that

They copy metal forms, and the same weapons of stone and wood.

In America, the first objects of metallic imitation are found in Ko-tosh Wayra-Jirka, Peru, a little before 1,800 BC. C., and in the Machalilla culture of Ecuador, of the same

date; In the first place mentioned, stone axes with rear fins appear, which imitate the shapes of Egyptian bronze axes from the same period; In the second there are some ceramic shapes that look like imitation metal. Then, from 1,500 BC. C., imitation metal objects are abundant in the ceramics of the Olmecs, Chorrera and Chavín, continuing in the last place with the stone axes mentioned. Finally, in the middle of the last millennium BC. C., imitation metal ceramics multiplied in Mesoamerica and the Andean area, while the first foundry metallurgy appeared on the Ecuadorian coast and in northern Peru; This metallurgy does not appear in Mesoamerica until the end of the first millennium after the Era, so that there: these imitations have existed since more than 2,000

years before metals were known.
Other places where there are imitation metal objects are English Columbia, where there are stone daggers and axes that imitate metal shapes, and the same in Central California, in both places with an earlier antiquity. , at least, to the Era. There are also imitation metal objects among the Pueblos, the cultures of Mississippi, and the SE and NE of the United States, the Antilles, Venezuela, Colombia and southern Central America, and in the Amazon.

In this last place there are still wooden swords with bronze shapes, which appear sculpted in stone in ancient statues from Costa Rica and Nicaragua.

4.—The violent anti-diffusionist criticism of Dr. JH Rowe and his reasons for challenging the diffusionist theory or interpretation.

We are going to present an interpretation completely different from ours, since it seems to us necessary to better judge the topic. The North American researcher, whose main work has been carried out in Peru, John Howland Rowe, published a long time ago in the prestigious magazine American Antiquity, in 1966, a fairly brief, but violent and aggressive work. , titled Diffusionism and Archeology. It only deals with the "timid" diffusionists, and it criticizes them in such an immoderate way that it reminds us of that Chinese concept that refers to an argument: the first to lose patience and resort to insults or aggression is the one who is not right.

The main accusation is that the diffusionists ("timid", although he does not say so, nor does he say anything about the ultra-diffusionists),

BEAUTIFUL CHIMU BLACK CERAMIC CUP. Linden-Museum Stuttgart, courtesy of Dr. Otto Zerries. Height 215 mm. Its shape shows that it is a copy of a gold or silver cup, with a long and complex anterior development. We do not know this form made of metal in indigenous America.

They select the facts that they are going to compare, especially those that are found on either side of the Pacific coast and, at the same time, they fail to take into account the similar facts that appear in other parts of the world, and especially in the Ancient Eastern Mediterranean.

Certainly we have made the same criticism of the "timid" diffusionists, but it happens that Rowe, in order to make his criticism, has voluntarily dispensed with treating the ultra-diffusionist authors, in order to make people believe that they are all the same thing.

As an example of the violent way in which Rowe treats the subject, we reproduce here the Summary that is presented at the beginning of the cited work, as is customary in American Antiquity:

"Doctrinal diffusionism is an ame-

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STONE DAWGERS FROM NORDIC CULTURE THAT IMITATE METAL FORMS. After Gordon Childe, L'Aube, etc., fig. 96. They come from Denmark, and the one in the center has copied all the details of the metal original, while the others are impoverished. There are similar forms in America. Below: elongated cist tombs in southern Sweden. Both features correspond to the Nordic IV culture of Montelius, prior to the full introduction of bronze. ;

naza for the development of archaeological theories based on comparative studies; It distracts the archaeologist from his studies and searches to destroy basic theories of comparison. In any case, diffusionist arguments are flawed in principle. The bias in the selection of data for these arguments is illustrated in a comparative cultural list between ancient Peru and the ancient Mediterranean" (Ob. cit., p. 334).

It is a first sign of aggressiveness by the author, but this and what we quote below show us that the author has a doctrinal position, and based on a priori evident. Without the slightest doubt, it is, psychologically, a moral position that is offended by the fear that the foundations that support their Image of the World will be shaken, as we see in the following text:

"Doctrinal diffusionism is a tenacious weed that began to poison nar the ethnological meadows and archeology as soon as he crossed the valleys. We are now subjected, as members of

archaeological assemblies, to the increasingly strident claims that Mesoamerican culture derives from China or Southeast Asia, the primitive Ecuadorian culture comes from Japan, that from the forest region of Siberia, the Peruvian one, from Mesoamerica, and so on. In the world of broadcasters' fictional science, a dozen similar details prove cultural contact, while time, distance, or navigational difficulties are left aside and not taken into account.

Regarding the language used by the author, we already have enough samples, so we will not deal with it further; but we will make a small comment on the last lines quoted. When a comparison is made, the main problem is whether or not it is the same thing, not how it came or at what time, which are facts to be elucidated in subsequent investigations. For the same reason, the basic problem is not whether, how or when cultural elements from the Old World could arrive in pre-Columbian America, but whether they are the same and are truly found here or not. If they are found, we have a fact; later we will have the problems of how and when they came. Having figured out the first, we have to face the second.

An example taken from Natural Sciences: today there are tapirs in Southeast Asia and South America. They are different species, but of the same genus. From the first moment they were known, they were recognized as directly related species, but we had to wait for the findings of paleontology to clarify the path of diffusion of the tapirs, which passed through Bering from Asia, to see their path. and time of diffusion.

The same thing happens in the Sciences of Man:

First you have to see if it is the same thing, and then see by what path and at what time the relationship occurred.

We continue with the appointment:

"Archaeology has a long and honorable tradition to renounce without protests the fantasies that make us abandon our conclusions and are used to distort the obvious... trying to refute in detail each of the extreme theories held by the diffusionists, does not leave any time to undertake any constructive work... due to this situation... the diffusionists will give their opinion

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We who do not have our own ideas and who criticize theirs because of the jealousy that their intellectual leadership inspires in us. The comments we publish here represent an attempt to avoid this trap by discussing the topic at a more general level.

"The diffusionists of fifty years ago, who knew what they said and what they did, were different from those of today who declare their principles in very general terms. They know perfectly well that the principles on which long-distance diffusion is based have been subject to very severe criticism and therefore they hope to avoid this criticism by limiting themselves to one "problem" at a time, such as transpacific contacts or diffusion. between Mesoamerica and the central Andes. This evasion of general theoretical guidelines has some very interesting correlations and consequences.

"First of all, this means that only those similar to the cultural tutions related to the "problem" under discussion. Any isolated similarity between Chinese and Mexican art is highlighted, because it is considered relevant to the problem of transpacific contacts, while the parallels between Greek painted vases from the 6th century BC. C. and the Moche painted vessels from the northern coast of Peru from around the 4th century AD. C. are completely ignored.

"Secondly, no effort is ever made to consider or determine the complete distribution of the compared elements. Many of the elements used as arguments for contacts

PERUVIAN WOODEN SABERS THAT COPY IRON SHAPES. Drawing made by E. Croniu, published in his work América, volume ll, Barcelona, 1892. The drawings are made in view of the originals, which are preserved in the Museums of Berlin, Leipzig, Copenhagen, Cambridge and Washington. In the center, a spearhead that lost its ceremonial tip, from the Lambayeque culture, on its sides various metal puzzles, and then four wooden sabers whose shape copies previous types of iron, the same as a sword with a triangular tip, whose form is today in use in Africa. Also a club and a slingshot.

"The transpacific species are known to be widely distributed throughout the Old World, in western Asia, in Africa, in Europe, as well as in eastern Asia, but only their relations with the Pacific coasts are mentioned…"

(Ob. cit., pp. 334-35).

Here the entire doctrine of the polygenist-creationist authors is summarized. It is a pity that the author does not cite any of those broadcasters from fifty years ago "who knew what they said and what they did." Are you referring to "di-fusionists" like Franz Boas or Paúl Rivet?

In either case, we believe that they did not know what they were saying or what they were doing, and the proof is that nothing they did, in any case, In terms of dissemination, it has contributed to scientific progress. If we refer to other previous authors, such as the Englishman Taylor, for example, we can remember that he maintained that the game of patolli from Mexico came from India (where it is called pachisi), and that the painted "eyes" on the bows of the ships of the English Columbia came from the "eyes of Osiris" of Egypt, also painted. The first is still under discussion: all the details match, the game board, the way of playing, its cosmic meaning, etc. A variant of the same is our ludo game, with its four cardinal colors. We agree, as we have already said, with the accusation that the similarities between Greek and Moche vases, etc., are not compared, but that refers to the "timid" diffusionists."

In addition, Gladwin assumed a Greek influence on the Mochicas, for which he was the subject of harsh criticism. Likewise, we agree that comparisons, if they are made, must be global and not limited to what exists on the inter-Pacific coasts: we have accepted, for more than twenty years,

Greco-Phoenician influences among the Mochicas, etc.

Next, the main thing about this work and

by

what we treat so much: the author pro-

provides a long list of sixty similar comparative cultural features between the ancient Mediterranean and the Andean region, which the "timid" diffusionists do not compare, and which, consequently, it uses to deny any possible relationship.

"...I have compiled a substantial list of specific cultural limitations similarities.

gives distribution that were used by cultures of the ancient Andean area and in the

3. The oracles present the formal sanctuary of worshipers, who can directly ask the deity, who speaks to them through the image or through a priest (Inca, Greece).

4, Arguments that the regular movement of the celestial bodies implies the existence of a deity superior to them (Pachacuti Inca Yupanqui; Apologia de Aristego).

5. Certain mythical combinations of animals: the griffin (lion and eagle in Greece; puma or jaguar and eagle in Tiwanaku) and amphisbaena, a viper with a head at each end.

Lithograph taken from an atlas of Ptolemy's Geography. Colored edition 1522, the pres
in small details such as the lack of land in the South that unites Africa with America, in
They reproduce traditional forms.

Ancient Mediterranean, before the Middle Ages. The list is as follows:

1. Divination by examining the entrails of sacrificed animals (Inca eastern Mediterranean and Italy).

2. Sacrifice of domestic animals, with preference to wild ones, and selection of animals of appropriate color for particular ceremonies (Inca, Greece and Rome).

6. Rulers for whom divine honors were given (Inca, Egypt, Greece and Rome).

7. Conventual religious orders for women (Inca, Rome).

8. Marriage of rulers with their sisters to increase or maintain the social hierarchy (Inca, Ptolemaic Egypt).

REPRESENTATION OF A BRONZE SWORD IN CENTRAL AMERICA. According to Karl Anton Nowotny: Ein Z Monolith aus dem Besitz von Emanuel Friedrichsthal. The monolith measures 183 cm. tall (in 1847 by Emanuel von Friedrichsthal, without data of origin (Nicaragua? Costa Rica? shows a clear bronze sword (possibly already made of wood), which appears to be of type m

RECENT CEREMONIAL SWORDS OF THE TIMBIRAS, Brazil, Ge linguistic group. In all of them the copy of metallic bronze swords is clear, which naturally could not be copied from the Portuguese iron or steel swords. The first two still present the soul in their center and length; The second shows at the end of its handle the V shape, typical of European swords from the end of bronze, and which also appears in a stone statue from Costa Rica. National Museum, Rio de Janeiro.

9. Humpbacked dwarfs employed as servants at court (Inca; Mediterranean

oriental).

10. Berth with seats, used for the transportation of rulers and high nobility (Inca, northern and central Peruvian coast, Rome).

11. Eunuchs used as servants to care for women (Inca, Eastern Mediterranean).

12. The land subdivided into standard rectangular units (“centuriation”) (Inca, Aymara, Roman).

13. Periodic population censuses

for tax purposes (Inca, Rome).

14. Military units made on a standard number of man, theoretically

BRONZE SWORDS FROM THE END OF THE BRONZE AGE OF SPAIN. According to R. Menéndez Pidal, History of Spain, fig. 612.
The first from Alconétar, Cáceres, and the other two from Huelva.
National Archaeological Museum, Madrid. Photo Archaeological Museum. We are interested in the shape of the handle at its junction with the blade, which forms an open angle. The same form occurs in America in numerous wooden swords, copied from metal, as seen in the accompanying illustrations. Naturally, this detail of the handle was very widespread in Europe at that time, and continued to the beginning of the Iron Age.

multiples of ten (Inca, Rome).

15. Military discipline.

16. Designs painted on shields to identify warriors.

17. Slingshots, used by hunters and as a throwing weapon in war (general in the Andes; Greece, Balearic Islands).

18. Tents used in military camps.

19. Cubic data.

20. Parlor games.

21, Deception.

22. Calculation using stone elements (abacus).

23. Standard measurements and graduated weights.

24. Balance with equal arms with containers hanging from pieces supported by their halves (Peruvian coast; Egypt, Greece

cla).

25. Type of Roman, which is a counterbalance
with mobility support (center and north of the Peruvian
mountains, Greece).

THE HANDLE OF AN OBSIDIAN POINT FROM MEXICO
PRE-COLOMBIAN. Fig. 2 from the article by Don E. CRABTREE,
Mesoamerican, etc. The final figure shows the wooden handle of a pufial or
better obsidian sword, whose triangular opening shape also appears in the wooden
swords of the Timbira of Brazil, in a stone statue from Nicaragua, etc., and which
corresponds to the Old World to the developed forms of European bronze swords.

26. Plumb bob with central suspension and
tapered tip.

27. Boats made from cane bales
intertwined (Peruvian coast, Lake Titicaca; Egypt).

28. Boat Bridge (Desaguadero.
upper Euphrates).

29. A type of women's dress, consisting of a
rectangular piece of cloth wrapped around the body,
under the arms and fastened on both shoulders,
held at the waist with a sash (Inca, the Greek peplos
is identical) .

30. Leather or spiral jute sandals. Very specific
similarities in drawing and manufacturing can be
pointed out.

31. Circular bronze mirrors, with handles (Inca;
general in the Mediterranean in classical times).

32. Copper and silver tweezers.

33. Metal finger rings.

34. Metal nails.
35. Delay in burials.

36. Bodies of the noble dead wrapped in many layers of clothing (southern and central Peruvian coast, Egypt).

37. False heads or masks on mummies (southern and central Peruvian coast, Egypt).

38. Cylindrical drum with two leather heads.

39. Trumpets with sound pieces in the mouth.

40. Rectangular house built of adobes on stone bases with a double gable or hipped roof (Inca, Greece, northern Spain).

41. Adobe house with a beehive-shaped roof made of projecting adobes (Titicaca basin, Cochabamba; Syria).

42. Metal staples to hold stone blocks in the construction of buildings (Tiahuanaco, Greece).

43. Rustic protuberances on large building stones (made to be used as moving level markers) deliberately left as decoration after the completion of the building.

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Yes, yes

THE SHAPE OF WOODEN SWORDS AMONG THE INCAS COPIED METAL SHAPES, as can be seen. illustrations by Huaman Poma from pages 151 and 171 depicting distinguished captains inc adversaries of the Incas who hold those metal-shaped swords, in the second e The metallic copy is clear from the soul, represented on both, as well as on the shield; is sunken instead of being a projecting edge, a Mycenaean characteristic. The greatest width in this a drawing by Cronau that we reproduce similar shapes in larger wood, which Africa actual.

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44, Entasis in architecture; a small vertical protrusion that is apparently not visualized because it is compensated by an optical effect (Inca, Greece).

45. Multi-story buildings, other than towers, with one story directly above the other.

46. Rustication (joining of masonry stones finished with bands of fine smoothing).

47. Rectangular molds for manufacturing

adobes.

48. Individual wooden frame bed.

49. Qanat, or irrigation tunnel for the conduction of ground water (Valley of Nazca; Near East and north Africa).

50. Siphon or conductive pipe to carry water through a valley (Inca, Greece).

51. Excrement of domestic animals used to fertilize the fields.

52. Hardwood hand hoe (In-ca, Egypt).

53. T-shaped ax made of stone, or metal (general in the Andean area; Egypt, New Kingdom, almost identical).

54. Sickle for harvesting cereals.

55. Horizontal loom of stakes placed on the ground (Titicaca Basin, Egypt).

56. Loom formed vertically with two curved joists (Inca, Egypt, New Kingdom, probably introduced from Mesopotamia).

57. Press mold for the industrial production of pottery vessels (Northern Coast of Peru, Rome).

58. Very fine line of incision used

to highlight details of anatomy and clothing of human figures in color paintings on pottery (Northern Coast of Peru) (Moche III style; Corinthian and Attic black figures).

59. Duck and small rodent used as food (muscovy duck and Indian pig in Peru, wild duck and marmot in Europe).

60. Domestic animals to use their wool and for transportation.”

Without a doubt, the above list is overwhelming against the theories of the "timid" diffusionists, but does the same happen with respect to the ultra-diffusionists?

After presenting the above list, Dr. Rowe tells us:

“The crucial problem is very simple. Can supporters of transpacific diffusion explain why cultural similarities between the Andean and Mediterranean areas are not significant, while similarities on the opposite coasts of the Pacific indicate ancient contacts? (Ob. cit., page 336).

In our opinion, these criticisms refer only to “timid” diffusionists, not to ultra-diffusionists like us, who are necessarily at the same time monogenists. As a result, we have to say that we almost entirely accept his comparative list, but, instead of judging it as negative, we consider it positive. That is to say, those cultural features of the ancient Mediterranean that are present in America, have had to come from there, via the Pacific.

If we do not accept this list in its entirety, it is because some features are included for obvious reasons.

mistake; for example the slingshot, and No. 27, which refers to the reed and papyrus rafts, a much older and more widespread cultural element, at least Mesolithic, and which must have reached America through Bering. Regarding No. 41, the reference to the existence of those adobe roofs in Cochabamba is erroneous: they are true vaults, of Arab origin, introduced by the Spanish. Instead, we have to thank the author for pointing out some cultural traits that we had not noticed.

Furthermore, the author falls partly within his

THE TEST OF KNOWLEDGE OF LATHE IN AMERICA PRE-COLOMBIAN. Back of two spinning wheel weights, in the author's possession; the first (the smallest) from the Paracas culture, long before Christ, the second from Ecuador probably from the Bahía culture from around the beginning of the

500 BC In both, the circular lines of the wheel with which they were made are clearly seen, even though the existence of the wheel in pre-Columbian America is denied. We have seen several dozen similar pieces, and their explanation is given in Chap. v.

own criticisms, since it makes the comparison feature by feature, generally without defining them well or locating their antiquity, and considering them as a unique, isolated fact, and not as an element that has had its own progressive development, at the same time It is integrated into a necessary set of knowledge, with its necessary background.

GOLDEN NOSES OF COLOMBIA, Sinú River region, existing in the Bank of the Republic of Colombia. The finesse of their work does not need to be praised, and in America they are only surpassed by the narigeras from Vicús. The largest and central one of them, above, is especially important, which has a small torque as its central frame, even with its ends well marked, as was generally the case with the nose rings.

Phoenician, which also, on that base torque, had multiple additions.

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For example, it would be very important to make a detailed comparison of the feature mentioned in No. 23, that is, the graduated measures and weights (did those weights and measures coincide in any way?), a point closely related to the two numbers. following (plate scale and Roman scale); We do not know enough about the subject to make the comparison, but the chroniclers tell us that the basic weight of the Inca scales was equivalent to one pound. It would be necessary to check that, and also its subdivisions. The pound, or mina of the Greeks, is a measure of Sumerian origin, which is still used today, with slight variations in its weight and subdivisions, which are generally 16 and 12. It is, furthermore, evident that the weight corresponding to a pound does not correspond to any natural fact; According to several authors, for the Sumerians it was

DETAIL OF THE HANDLE OF TWO WOODEN SWORDS OF THE TIMBIRA OF BRAZIL. What matters above all in the first is the way the handle joins the handle with the blade, and it is similar to the one that appears in a Central American statue published next to it. Form corresponding to the developed Bronze Age of Europe. National Museum, Rio de Janeiro.

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ONE OF THE FAMOUS “BOARDS” OF PALENQUE. According to Stephens in “Old Mayan Empire”. The texts have not yet been able to be translated. Of great interest is the representation of the central panoply, formed by a gorgonian shield and two spears. We know representations of panoplies only in the Cretan civilization, Greece, the Mayans (like the present one) and the Mochicas of Peru (a mural painting and numerous ceramic representations). They must exist in other intermediate places, which we do not know about. Observe the slaves that serve as a base of support for the two great characters: in the Old World, instead of human beings for that “duty”, a lion was generally used, but in some places in Africa human beings

They even served as a throne for kings.

the weight of 1/240 of a cubic cubit of water, and therefore that a convergent invention has occurred in a similar measure and with the same arbitrary weight, is something absolutely impossible, according to all mathematical probability.

The same could be said of many other elements on that list, for example point 44 lentasis in architecture, which is a bulge in the shaft of the columns; of Egyptian origin, although the author does not cite it), which certainly does not seem like a simple detail of Elemen-targendanken, and which has had to evolve; Does that same evolution appear in Inca architecture? Or, as in several other cases, do only its most developed forms appear there, without its antecedents existing locally? In the first case, a parallel evolution could still be sustained; in the second that would be impossible.

In the case of the molds for making ado-bes, No. 47, we have the very important fact of their size. We, in pre-Inca towns of San Pedro de Atacama, found with surprise adobes made in mold, whose measurements were exactly the same as those of the Spanish colonial buildings. How many shapes and sizes of adobe are known in the Andean region, and with what periods and cultures of the ancient Mediterranean do they correspond? Convergence on this is impossible. Furthermore, the oldest shape of hand-made adobes, in Sumer and on the Peruvian coast, is conical, somewhat special, like wedges. Do they have the same measurements in Sumeria and Peru? This form of adobe continued to be used in the construction of the very solid chullpas (type of mausoleums) of the Altiplano.

We can accept that the existence of convergent or parallel evolutions is assumed, but maintain that in a region an entire progressive evolution occurs, from simple forms to reaching its maximum development, while in another you get that from the first moment, it seems to us that it is overabusing

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It is based on the purely theoretical interpretive principle of convergence, which Rowe does with numerous elements on his list. Likewise, convergence is impossible in weights and measures of more or less arbitrary origin, as in the case of the adobes mentioned, etc.

In the list presented by Rowe, the first place of origin of the treated trait is always missing, as well as the time of its first appearance in the ancient Mediterranean. We have not made a detailed examination of the case, but from the beginning it is noted that a large number of them are of Assyrian-Babylonian and Hittite-Urartu origin, and that they have spread throughout the Mediterranean in the orientalizing era.

We repeat that the most urgent thing in these studies is that the different authors, both those of one tendency and those of another, try to clarify the bases from which they start to understand the facts discussed. Supporters of convergent inventions and in-place developments should have long ago provided us with a series of basic models, clearly expressing their thinking about which cultural traits can be invented independently, pointing out the reasons. of this, and what those rules would affect, expressing not only the trait itself, but also the evolutionary processes that can occur.

to produce these convergent inventions; It must also be clarified in each case whether the development processes necessarily have to be the same, or whether the same results can be reached by following different routes. Likewise, the "timid" diffusionists should have presented us with their interpretative set in this regard, that is, what kind of features, in their opinion, cannot be of convergent invention, and the reasons for this.

5.—An ultra-diffusionist response to Dr. Rowe, and expansion of his comparative list with the ancient Mediterranean.

In Rowe's work it is assumed that the cultural elements or features of the extensive list of 60 elements that he presents to us (similar between the ancient Mediterranean and the Andean region) that no diffusionist author compares, are, for the sole reason fact of their presentation against (as they are not taken into account by these researchers and therefore remain of independent origin), sufficient proof to demonstrate that all the interpacific comparisons that are made (always made with a smaller number of traits) do not have the lower probative value of relations of origin.

We, for more than twenty years, have been comparing them and maintaining that there are relations of origin between the ancient Mediterranean, and its surroundings, with pre-Columbian America, so Rowe's negative criticisms do not affect us; On the contrary, we have transformed his negative into a positive one, and it has been of great benefit to us.

Below we are going to examine the facts in more detail, but since they are numerous, we will specialize in a very specific point: metallurgy. In Rowe's work or list, we find only six points that refer to it, that is, exactly ten percent of the cases, which is not much. But if it was-

It was the sixties, would things change? We already know that today mathematics is the absolute sovereign of all sciences.

So, to contradict Rowe's arbitrary use of it by showing a larger negative list than the small positive lists of today's "timid" diffusionist authors, we are going to present a larger positive list.

This is what we will do regarding the features of metallurgy, in comparison between the ancient Mediterranean and the Andean zone, to which we add some other metallurgical facts from other American regions. The six similar traits in metallurgy that Rowe cites are the following:

31. Circular bronze mirrors, with handles (Inca; general in the Mediterranean in classical times).

32. Copper and silver tweezers.

33. Metal finger rings.
34. Metal nails.

42. Metal staples to hold stone blocks in the construction of buildings (Tiahuanaco, Greece).

53. Stone or metal T-shaped axes (general in the Andean area; Egypt, New Kingdom, almost identical).

Altogether, these six features appear loose and dispersed, and from different periods, so that they do not truly authorize an organic comparison between them; But things change immediately if we start to seriously study its process of origin and development.

In that case they are no longer isolated, and are part of the development of a unique metallurgy, provided with a common origin.

METAL IMITATION STONE AXES FROM BRAZIL.

According to Stig Rydén, Brazilian anchor axes, fig. 13. Marked by a line of thick dots is the territory of the Gê linguistic family, to which the author attributes the origin of this type of axe, but that linguistic group has today been separated into several very different families; Furthermore, the most developed Gé were only at the beginning of agriculture, and this form of axes copy highly developed bronze models, such as only exist on the northern coast of Peru and Tiahuanaco.

We believe it is likely that the people of the Santarém culture, descending through the Amazon, took the shape of these axes there, which was then passed on to the most primitive Gé.

As a result, we maintain that all American metallurgy, although for the moment we refer almost exclusively to that of the Andean region, following Rowe's approach, has a common, unique origin that is found in ancient Asia, from the shores eastern Mediterranean to the Persian Gulf. To demonstrate this we will present our list of the facts of American metallurgy, fundamentally Andean, but which practically includes all its facts and forms.

We clarify even more, in ancient Andean metallurgy, there are no isolated facts, all those presented here have their corresponding forms in the ancient Mediterranean, although we find some of them with the variations inherent to having passed through the south of the India and Indonesia. A few of these traits are found in ancient China, others in northern India, and even in black Africa, in addition to having spread among Eurasian pastoralists, but still they have spread from earlier Asia, and in the set

In America our relations are evident with the ancient metallurgy of the eastern Mediterranean, especially Anatolia, the Phoenician coast and its surroundings, Cyprus and Egypt. There are also features that indicate a Mesopotamian derivation, through the Persian Gulf and that may be greater than what we initially assume.

We will try to order things according to their possible relative antiquity, although we confess that our study has not reached

METAL OBJECTS SEEN IN MUSEUMS OF LIMA. Drawings by the author lightly done in a short visit. Pieces 2 and 3 from the Larco Herrera Museum, the others from the Gold Museum. Fig. 1: small copper dagger with a broken blade, current length about 12 cm, with a deer on the handle, N2? of Cat. 652. Fig. 2, copper helmet (there are 2 examples). about 25 cm. High. Fig. 3: Podon-shaped spear, made of bronze, almost 30 cm. Fig. 4: copper coin-axe, about 17 cm. long, there are about 20, all without edges. Fig. 5: silver nail with a flat head, there are several, Nos. 3,109 to 3, 121. Fig. 6: bronze axe, its sign says of Chimú origin, No.? 4,719, about 15 cm., its shape is not American but exclusive to Central and Nordic Europe. The same goes for the next piece, N2 4.720, which measures about 10 cm. Both have to be pieces imported for transpacific navigation.

still to give us a sufficiently clear picture of all the problems that result.

We will start with the techniques, then we will continue with the concrete objects. The succession of techniques is the same as that which occurred in the

COPPER AND BRONZE PIECES FROM THE LIMA GOLD MUSEUM. Drawings made by the author “freehand” during a brief visit. N® 1, copper, about 70 cm. long; extreme “lengthening” of a copper talent from the ancient Mediterranean, as also occurs in Africa and North America, Cat. No. 896. Fig. 2: bronze (?), kind of sword, without soul, length 65 cm ., N? of Cat. 747. Fig. 3: copper spearhead, N? of Cat. 4,792, quadrangular at the base, about 80 cm. long, which is an exceptional size. Fig. 4, there are two specimens, Nos. 796 and 797, made of copper, about 50 cm. long, large tupu with a double spiral ending; In the Museum of Luján, Argentina, there are similar ones of about 40 cm. Fig. 5: spearhead in the shape of a large chisel, due to loss of the tip, about 70 cm., made of copper, figure in relief with the sign of value or law. Missing from the drawing. Fig. 6: “harpoon” tip, with four serrated sides, there are several, made of copper, between 20 and 35 cm. Fig. 7: copper bugle, length 140 cm.

Metal objects of such a large size are rarely reproduced in publications.

Old World, in former Asia and Egypt:

1. Discovery of metals, stage

eneolithic or chalcolithic; gold and copper; They work with a hammer, as if it were a malleable stone.

This survives marginally into later times, as does the heating of those early metals to make their work easier. The first pieces worked were needles, hooks and small jewelry.

This hammer metallurgy occurs in America in three different regions: the English Columbia, the Wisconsin region, Minnesota, etc., of the United States, and the Chavín civilization of Peru. In the first two places, it is native hammer-worked copper, but the resulting forms correspond to types cast in the metallurgy of the Old World, and of the Middle Bronze Age (Wis-spearheads). consin, for example). In Chavín, refined gold jewelry, corresponding equally to the middle Bronze, even higher, and the Iron Age (wearing mirrors, etc.).

2. Discovery of the smelting of gold and copper, in ancient Asia, about 5,000 years before the Era; native copper, carbonates and copper oxides are smelted.

In America this occurs on the northern coast of Peru and Ecuador, with much more developed forms, about five hundred years before the era.

3. Smelting of copper sulfides, which seems to begin in Egypt around 1,400 BC. C., then it spread throughout much of the Old World. Likewise in the Andean zone, with no date established for its beginning.

The same in western Mexico. In the Old World this corresponds to the Late Bronze Age.

4. Rekindling of the foundry fire by pipes blown by men,

usually with clay tubes. Beginning of metallurgy in Mesopotamia and Egypt. General use in American, Andean and Mesoamerican metallurgy. Current use in South India.

5. Use of bellows with the same object, made of leather, which appear around 2,100 BC. C. in Mesopotamia, later in Egypt. Its existence is denied in America, but we believe it is possible in the Andean zone, due to the discovery of pieces of leather packed together and dyed with copper, in an Inca foundry site, south of Tiahuanaco.

6. Placing smelting furnaces in high places, where the wind acts as a bellows, described in the Bible for the smelting of iron in the times of King Solomon;

CERAMIC CORNETS WITH METAL SHAPE FROM PERU AND SPAIN. The first, a ceramic cornet from the Recuay culture of Peru, the second also made of ceramic from the excavations of Numancia, a city destroyed by the Roman conquest, Spain.

Both are indisputably metallic imitation, from previous bronze models. According to W. Bennett, The North Highlands of Peru, American Museum of Natural History, New York, 1944, and Melida, Spanish Archaeology. Labor Collection, Barcelona.

They are the so-called Inca huayrachinas, from. current use in Bolivia, formed by ovens in the shape of little towers full of holes for the wind to act as bellows, placed in high places.

7. Shaped smelting furnaces

towers; we have not been able to locate its beginning in earlier Asia; They do not appear in Egyptian paintings with foundry scenes; Current use in black Africa for smelting iron, with bellows.

Assyrian-Hittite origin, to smelt iron?

Andean zone: the huayrachinas that we just mentioned.

8. Use of metal, especially gold, in the making of jewelry, in lost wax molds: in Mesopotamia since before 3,000 BC. C. New diffusion in the orientalizing period. It appears on the Peruvian-Ecuadorian coasts since four or five centuries BC. c.

9. Use of different clay molds for the manufacture of instruments, especially weapons and work instruments in copper and bronze, which must then be broken to remove the manufactured object. ancient Mesopotamia; Andes.

10. Use of double stone molds, which are then opened, to remove the manufactured instrument. Ancient Mesopotamia, Egypt, Indochina from 2,400 BC. C. Numerous in the Andean region, up to NW Argentina, since before the Era.

11. Amalgam of metals, discovery of bronze and similar weaker amalgams due to a combination of various

metals. Mesopotamia, before 3000 BC. C.; to. C.; Peru, copy of Egyptian-type bronze axes in stone from before 1,800 BC; appearance of bronze several centuries before Christ.

12. Use of stone inlays

“PROTOMOS” REPRESENTING DOUBLE ANIMALS IN AMERICA AND THE OLD WORLD. According to R. Heine-Geldern, Die Asiatische, etc., A. of Kedabeg-Kalacent, Transcaucasia (1300 to 700 BC); According to the author, from there they would have spread on one side to Italy and on the other to Northern Persia and Luristan. B, of

Luristan; C, of copper, the first of Copacabana and the second of Tiahuanaco.

In museums in Europe we have seen numerous similar pieces, in bronze, belonging to the Roman civilization, and they are ornaments five to six centimeters in size, rarely larger, some represent protomes of bulls, with horns and ears. In the Tiahuanaco de la Paz Museum there are several similar ones, at least two have four ears on each side, evidently a copy of bull heads with their horns that were no longer known to be such, and were transformed into ears.

fine jewelry and vessels, or coffin. Mesopotamia and Egypt in the 3rd millennium BC. Peru, at least in the time of Christ, great development in Lambayeque.

13. Jewelry of gold, silver, copper, etc., made with threads or wires, that is, drawn, filigree; imitation of it in lost wax casting. Panama, Colombia, coast of Ecuador, Virú, Mochica I, Lambayeque. At least since the time of Christ.

14. Granulation, an ornamentation technique in gold jewelry, which is covered with very small grains, measuring up to tenths of a millimeter, which do not deform when attached to the base of the jewelry. Sumeria, Phoenicia, Etruria, Greece; Peruvian-Ecuadorian coast possibly from before the Era. It is a very specialized technique, which was lost and was rediscovered in Europe half a century ago, studying antique jewelry.

waters.

15. Various techniques for dyeing the surface of metals, especially to obtain gold, based on oxides of plant origin. Great development in Colombia, according to the chroniclers. Greece?

16. Gold plating or plating in extraordinarily
thin layers, which today is made by electrolysis,
and which makes

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THE SYRIO-CRETENSE DOUBLE-AXE COPIED IN STONE IN USA According to M. Covarrubias, The Eagle, the Jaguar and the Serpent, fig. 91. The author tells us about stone "problematic objects" characteristic of the Northeastern Woodlands: pectorals, weights, submersibles, "stone birds" and "banner stones," made of striped slate, quartz, steatite, diorite and porphyry (drawn according to Knoblock, 1939; Willoughby, 1935, and Lilly, 1937). ancient Crete, Syria, etc. Several of these shapes are the same as those of the Ancient Mediterranean. Its shape with central sleeve is impossible to originate in a pre-agricultural culture as assumed.

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A few years ago it was demonstrated that in Hellenistic Mesopotamia they were also carried out through the use of electric batteries, several of which have been found; This seems impossible for indigenous America, but it would also have been said recently that it was absolutely impossible for Mesopotamia. There are Mochica veneers that seem to be made in this way and even, in the collection of Mr. Yoshitaro Amano, in Lima, we have seen two platinum-plated bowls, of incredible thinness, which seem impossible to us to have been made in any other way.

17. Welding of various metal parts, including different metals, to form a single assembly. Ancient Mediterranean. Lambayeque on the Peruvian coast, sometimes by hammer inlaying. Vicús, the same.

The above refers to techniques, and without a doubt we have missed, or have not seen it yet, more than one important feature.

We will now continue with the details of the shapes of the objects obtained in metal casting:

18. Large pins or tupus to pin the blankets, in the shape of a half moon.
Ancient Mediterranean. Andes.

19. Large pins or tupus on a full moon. Ancient Mediterranean and diffusion in Europe to Nordic culture. Andes.

20. Large pins or tupus, finished two er. simple spiral. Ancient Mediterranean. Andes.

A CAUCASUS BELT BROOCH AND PANAMA ORNAMENTS. According to R. Heine-Geldern, Die Asiatis Caucasus; B, belt clasp, broken in the center, bronze, Dong-son; C, gold ornament d openwork work in the middle of a square frame, which is basically formed by a motif d Dong-son and Chiriqui also have spiral projections on the edges, although the latter Piece from the Caucasus has in its center the scene of the deer hunted by two dogs, something that has six “extra” protruding heads, something that appears in current Borneo and in the Dr culture.
Ancient Mediterranean.

TRANS

21. Large pins or tupus, ending in a double spiral. Ancient Mediterranean, with various diffusions in Europe. Andean zone to the Argentine NW.

22. Large pins or tupus, ending in a simple ring.
Ancient Mediterranean.
Andes.

23. Large pins or tupus, ending in a set of three rings. Meditate-

ancient skull, northern Italy, early Bronze Age in Aunjetitz.
Andes; We have seen one in Bolivia.

24. Large pins or tupus, ending in the shape of various balloons. Mediterrd-neo ancient. Peru, Bolivia; Colombia, in

air

25. Large pins or tupus, with globes open through slits and with small stones, that is, bells, inside. Ancient Mediterranean, etc. Peru and Bolivia, in bronze; Colombia, in gold.

ancient. Peru and Bolivia. We have had in our hands two of these Inca silver pieces, found in Bolivia.

30. Large pins or tupus, with a deer hunting scene with one or two dogs.
Scene of Sumerian origin. Ancient Mediterranean and surroundings. Peru and Bolivia, we know three pieces from Bolivia, made of bronze and copper.

31. Large pins or tupus, with engraved scenes, of circular form, etc. ; Ancient medi-terranean. Peru, Bolivia, NOT Argentina.

32. Large pins or tupus, of various shapes, with small pendants on their sides, especially miniatures of jugs, weapons and tools. Ancient Mediterranean, especially Anatolia and Phoenicia. northern Peru.

It goes without saying that all these kinds of pins or brooches do not appear at all.'

i BOLIVIA

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CAUCASUS BORNEO TRANS ÿÿ

PERU and CAUCASUS places
NORTHWEST

PERU GAUGES, ARGENTINA PERU PERU
CAUCASUS

CAUCASUS CAUCASUS

THE SHAPE OF METAL PINS IN THE OLD WORLD, PERU, BOLIVIA AND NON-ARGENTINE. Yes unnecessary to highlight the similarities more; We personally add that this painting could forms and a series of dates.

26. Large pins or tupus, with flowers or leaves. Ancient Mediterranean. Peru and Bolivia. We have found one.

27. Large pins or tupus, with zoomorphic figures on their upper part, especially birds, but also mammals.

Ancient Mediterranean. Peru and Bolivia.
Colombia, in gold.

28. Large pins or tupus, with ends in the shape of human figures or heads. Ancient Mediterranean. Peru.

Colombia, in gold.

29. Large pins or tupus, with stones embedded (cataugía). Mediterranean

on Rowe's list. They had already been compared before by several authors, even in the last century, and it was not convenient to draw attention to them again. Furthermore, the list that we have presented can be expanded considerably. We continue:

33. Metal clubs or puzzles, generally bronze, round and sharp.
Previous Asia, especially Persia. Stone copies in Melanesia and New Guinea. In copper and bronze, Peru, Bolivia, northern Chi-

_ le and Argentina. Stone copies in the south of Chile, Costa Rica, western Mexico.

34. Metal clubs or puzzles, with several star-shaped points. Asia

113

114

Previous, Persia. Survivals in Europe until the 15th century. Imitated in stone in Melanesia and New Guinea. Bronze in the Andean area, from the Vicus culture prior to the Era, and in use until the Inca era. Copied in stone in the Chavin area, since 1,000 BC. C. Stone imitations that extend to Costa Rica and western Mexico.

35. Metal clubs or puzzles, with several star tips and one of them in the shape of a small axe. Ancient Eastern Mediterranean. Peru. We know of two of them found in Bolivia, Inca.

36. Maces or puzzles of metal, bronze or copper, with several edges, straight or curved. Ancient Mediterranean. Persia, Peru, from the Vicús culture.

37. Maces or puzzles of metal, bronze, with human or animal figures or faces. Persia, ancient Mediterranean; imitated in stone in Costa Rica.

38. Flat embedded axes, the oldest made of copper, quadrangular section, widely imitated in stone in Greece, Spain, Scandinavia, Indonesia, etc.

Elám, Sumeria, ancient Mediterranean, Egypt. Imitated in stone in the Ecuadorian cultures of Valdivia and Chorrera. Later, copper and bronze from Colombia to Araucania. Mexico. Imitated in stone in English Columbia.

39. Flat recessed axes, made of copper and bronze, with a hole in the back to help tie them to the handle.

Egypt, Peru, Ecuador and Bolivia. Imitated in stone in Bolivia and Araucania.

40. Flat recessed axes, similar to the previous ones, with two and three holes.
Egypt. Andes. Very imitated in stone in Bolivia at the end of the Megalithic culture, prior to the Era. NOT Argentinian.

41. Flat axes for later binding, with small fins and one or more holes, made of copper and bronze. Elám, Egypt, Peru, Ecuador, Bolivia.

42. Flat axes to be tied later, with large fins, without a hole, widely imitated in stone in Egypt and the Andean area, etc. Elam, Egypt. Andean zone, imitated in stone since before 1,800 BC. C., then on the northern coast of Peru, in copper and bronze, from before Christ to the Inca era.

43. Flat back-tying axes, with large fins, half-moon edge. Egypt, ancient Mediterranean. Andean zone, etc. Elám, Egypt, Andean Zone; They arrive in eastern Brazil intensely, imitated in stone.

44, Flat axes of various shapes, made of bronze, with animal figures on the back, especially felines. Persia, eastern Mediterranean. Andes. NOT Argentinian. Imitated in stone in Costa Rica and western Mexico.

45. Flat axes with a central hole for the handle (like ours), generally made of bronze, but also made of copper where tin was lacking. Origin in ancient Asia, diffusion through the ancient Mediterranean

guo and among the Indo-Europeans. Ecuador, Peru. Imitated in stone in Costa Rica.

46. Flat axes with a central hole, ending on the other side in one or more points. Previous Asia, Hittites. Incas, royal insignia. Argentine NO in bronze, with loss of the central hole. Imitated in stone in western Mexico, with equal loss.

47. Flat insignia or ceremonial axes, made of gold in Crete, with a double edge, with a central hole. Syria, Crete. Imitated in stone with loss of the central hole in Bolivia. Imitated in stone in much of the United States, with conservation of that hole; there they are generally called flag stones, to reject their relationship with the double axes of Crete, etc.; made of soft stones, without possible practical use.

co.

48. Copper and bronze spearheads, lanceolate, with a central spike to insert them and tie them to the handle. First Bronze Age of previous Asia, and diffusion through the Mediterranean, etc. Numerous examples of hammer-worked copper in Wisconsin and surrounding areas. Seen a Peruvian specimen that is not lanceolate, but has a spike.

49. Copper and bronze spearheads, lanceolate, with a tubular mouthpiece for the handle. Second Bronze Age in earlier Asia, etc. Numerous imitations in hammered copper in Wisconsin. Same hafting in Peruvian pieces, but with loss of the lanceolate shape, and often of the tip. We know of only one Peruvian lanceolate point of this type.

50. Copper and bronze spearheads, with tubular and cylindrical handles, with a sharp point. They are confused with the end caps mentioned below.

51. Copper and bronze spearheads, with a tubular handle but with four sides. The same as the previous ones. Greece, Lambayeque.

52. Degenerate spearheads in the shape of a shovel, with a blade instead of a point, embo-

tubular cadura. Sicily. Lambayeque.

53. Ceremonial spearheads, similar to the previous ones, with engraved, openwork ornaments and various pendants. Lambaye-
what.

54. Spear or mace tips, tubular mouthpiece with circular section. Greece.
Mochicas, Lambayeque. In iron in Africa and present-day Indonesia.

55. Spear or mace tips, with a quadrangular section. Greece. In iron in current Africa and Indonesia. In copper and bronze, northern coast of Peru.

56. Metal helmets of simple rounded shape. Mesopotamia. In gold in Colombia and Ecuador.

57. Metal helmets with a conical-rounded shape, ending in a point, probable Assyrian-Hittite origin; Most of them had to be imitations of leather, etc. Previous Asia and its diffusion. Mochicas, two copper specimens seen in the Gold Museum in Lima; imitated in leather and basketry; These basketry imitations reach the north of Chile and the highlands of Bolivia.

58. Metal helmets with cheek guards or cheek guards, probably in leather in their

for the most part, from the 18th century BC. from C. in Mari, and from before in Sumeria, in metal.
Its developed forms, especially the Corinthian metal helmets (Orientalizing period), are imitated in leather as far as Hawaii, according to drawings from the last century, which we reproduce.
In Mesoamerica there are several clay representations showing warriors with helmets equipped with cheek guards.

59. Metal helmets, often imitated

GREEK TYPE RAZOR KNIVES IN ECUADOR. These pieces, which are made of silver or copper, are generally called "knives" by mistake. They also exist on the Peruvian coast. Its general shape and especially the rolled handle corresponds to the razors of ancient Greece and its derivatives reach Scandinavia.

They survive on our razors.
There are also similar ones in Persia.

made of leather, wood, etc., with zoomorphic figures, feather decorations, etc. Previous Asia, ancient Mediterranean. Andean zone, Mesoamerica, in wood; English Columbia.

60. Armor and especially breastplates of metal plates, often imitated in leather and wooden splints. Previous Asia, etc. Moche drawings, English Columbia.

61. Metal leg loops, to protect soldiers' legs. Greece since the end of the Mycenaean. Moche paintings where the warriors appear with them painted, as if they were made of leather. In gold, for the mummies in Panama, according to a chronicler.

62. Metal shields and shields covered with metal plates. Probably Assyria, Hittites, then Greece, etc. Peru. We have

One found in copper very hardened by hammering in Bolivia, purchased, so it is not possible to locate its age.

Inca?

63. Metal needles with an eye. Ancient Mesopotamia and its diffusion zone. The entire Andean region up to NW Argentina.

64. Razors, of the same for-115

EXTRAORDINARY WOVEN GLOVE FROM THE EXPANSIVE TIAHUANACO CULTURE. The shape of this glove, the same as that worn by the high priest of Jerusalem according to the Bible, and which has been used c

ceremonies, and for the rest of our common gloves. It is difficult to conceive that such a form yu gloves appear to be of Persian origin. Licensed photo courtesy of BROOKLYN MUSEUM by N

more than ours, with a terminal spiral, without a point. Ancient Mediterranean, especially Greece. Northern coast of Peru and Ecuador, in silver and copper.

65. Grapas or grampas, keys, of copper and brass, used in architecture. Assyria, Greece, etc. Tiahuanaco and the Incas. In Tia-huanaco with the final historical form in Greece, 5th century a. C., double T-shaped.

Other curves.

66. Large, straight silver and copper bugles, cited in the Bible. North coast of Peru, Mochicas. The same in Mayan paintings, undoubtedly non-metallic. Nazca, in ceramic.

67. Large or medium silver or copper bugles, with a spiral turn to the center, and an opening ending in a draconian head with an open mouth. Various shapes, some with a flattened clarion-shaped turn; others with simple mouths. Imitation in

pottery found in the ruins of Numancia, the Spanish city destroyed by the Romans. In silver and ceramic imitations among the Mochicas, with the same mouth as in Numancia; in the shape of a clarion in Recuay ceramics.

68. Copper and bronze chisels, short, narrow, with a quadrangular section, like flat axes, but longer. Mesopotamia, Egypt. Andes.

69. Long copper and bronze chisels, similar to the previous ones except for the length. Mesopotamia, Egypt, India. Andean zone, Mexico.

70. Copper and bronze chisels, short, wide, hardly distinguishable from flat axes. Same places as before.

71. Copper and bronze chisels, long and wide. Mesopotamia, Egypt. Andes.

72. Copper and bronze hooks, various shapes. Mesopotamia, Egypt, etc., and Andean coasts of the Pacific.

73. Bronze harpoons with various shapes, and even with multiple points on the sides, which may have been mostly javelin points, etc. In iron, recent Africa and Indonesia, ancient India. North coast of Peru, abundant in Moche paintings such as javelin points, with abundance of lateral points, Vicús, findings in copper and bronze.

74. Drinking vessels, at first imitated from cattle horns (which did not exist

in America), worked in the shape of an animal head, generally with a small hole in the mouth, which occupies the lower, while the mouth through which one drinks corresponds to the neck of the zoomorphic head; some in the shape of a human head. Called rithón in Greece. Per-sia, Crete, etc., new diffusion in the orientalizing era. Andean and Mesoamerican zone, from times before the Era, even with the small opening in the mouth.

Imitated in ceramics both in the Old World and in America, where almost all specimens are ceramic.

75. Ocarina, musical instrument with several holes, sometimes made of metal, more generally ceramic or wood. Ancient Mediterranean. Andes. Various shapes.

76. Gold nails as ornaments in bas-relief sculptures. Ancient Mediterranean. Tiahuanaco.

77. Metal rings, flat and cylindrical, open. Ancient Mediterranean. Andes. We have found several alloyed silver, flat and open, in Chuquisaca.

78. Closed, flat and cylindrical rings. Ancient Mediterranean. Andes.

79. Metal rings with a wide projection on the back, with various figures, zoomorphic, anthropomorphic, openwork. Ancient Mediterranean. Andes. Mesoamerica.

80. Metal torques, that is, rigid metal necklaces, open, thin and thick, ending at their ends in spiral shapes or various figures. Anterior Asia, Mediterranean, central Europe, typical decoration of the Celts. Current diffusion in various parts of Africa, India, Indochina, Indonesia. Colombia and Vicús. In Mesoamerica, represented on preclassical ceramic figurines, undoubtedly non-metallic copies. In metal. English Columbia.

81. Metal torques, closed, that is, forming a continuous ring. Ancient Mediterranean. Africa. Indochina-Indonesia, current. Colombia.

82. Miniatures of metal, with human forms, as ornament for hanging on various jewels. Ancient Mediterranean, Ana- tolia, etc. They all have.

83. Metal miniatures, with various shapes of commonly used vessels, weapons, instruments, etc., to hang, as ornament,

THE EXTRAORDINARY FUNERAL GOLDEN GLOVES OF LAMBAYEQUE. From: Catalog: L'Or du Pérou, fig. 442. They are generally attributed to the Chimú culture, with which late Lambayeque merged, but they seem to be a little older. There are several other copies. The ones below measure 54 cm. long. The fingernails are covered in silver. These gloves are unique in the world, although there is a reference from a chronicler who saw gold gloves and legs put on a mummy of a chief in Panama, when he conquered it. However, we believe it is possible that something similar exists in the Old World, perhaps in Indochina or Southern China, and that would allow us to make a comparison that is impossible if it were due to convergence.

as it is used today in women's bracelets. Ancient Mediterranean. Andes.

84. Round mirrors with a small handle, with a hole to carry it hanging. Previous Asia. Andes. We bought and have one from Bolivia. There are them in the Argentine NW.

86. Square mirrors with a somewhat long handle. Ancient Mediterranean. Peruvian coast- already.

87. Ustorial mirrors, that is, concave, to light the sacred fire in the temples. Egypt, Phenicia, Greece, Rome, China 6th century BC. C. Chavín in hammered gold, 7th or 8th century BC. C., Olmecs from Mexico, made of pyrite.

88. Open cylindrical and flat bracelets. Assyria, ancient Mediterranean. Peru, Bolivia, NOT Argentina.

89. Closed, cylindrical and flat bracelets. Idem.

90. Bracelets with double decorations spiral. Ancient Mediterranean, etc. Peru.

91. Bracelets with hanging miniatures. Ancient Mediterranean. Northern Peru.

92. Various bracelets with encrusted stones. Ancient Mediterranean. Northern Peru.

93. Bracelets with threads glued together forming spirals or figures. Ancient Mediterranean. Northern Peru, Ecuador.

94. Bracelets made up of several plates joined with crimps. Anatolia, ancient Mediterranean, especially Phoenicians.
North coast of Peru.

95. Crowns or diadems of various shapes more, closed like a helmet or open. Previous Asia, ancient Mediterranean. Peru. Bolivia, NW Argentina to Mendoza (beautiful silver and copper specimens).

96. Crowns or diadems with decorations in

shape of feathers, daggers, etc. Anatolia,

Ancient Mediterranean. North coast of Peru, NOT Argentina.

97, Jewelry with figures of eagles, or other birds. Previous Asia, ancient Mediterranean.
Andean zone to Costa Rica.

98. Bronze bells, large and small like rattles, often with oval mouths. Ancient Mediterranean.

China. Andean zone to NW Argentina, often copied on wood.

99. Jingle bells with internal rattle-stone, simple shapes and others imitating zoomorphic figures, others with filigree or metal wire covering. Ancient Mediterranean.

Indochina, etc. Andean zone, Mesoamerica, Antilles.

100. Metal gloves, originally as armor, but also used to decorate mummies. Ancient Mediterranean. Lam-bayeque.
Panama, description of a chronicler.

101. T-shaped knives, or tumi, various shapes on the blade and the end of the handle. Anatolia, Egypt. Andes.

102. Round spoon-shaped tweezers. Ancient Mediterranean.
Peru and Bolivia to the Argentine NW.

103. Oval-shaped shaving tweezers. Idem.

104. Hairpins of various geometrical, triangular, etc. forms. Ancient Medite-rráneo, great diffusion in Europe.

Andes. Mexico.

105. Hair removal tweezers

bird head Ancient Mediterranean. Peru.
Abundant in the Argentine NW.

106. Crescent-shaped tweezers. Ancient Mediterranean.
Andean zone, Ecuador, Colombia, Mexico, etc.

107. Gold funerary masks. Egypt, Mycenae, Phoenicia, etc. Achantis on the coast of Guinea, Africa, Andean zone to northwest Argentina. Imitated in stone, especially jade, in Mesoamerica.

108. Necklaces of gold beads, etc., of various shapes, immediately comparable in all their details, especially those formed by two small hemispheres soldered together, and those that represent human or animal faces. ancient mediterranean,

Andean zone, especially the northern coast of Peru, Ecuador, Colombia, etc.

109. Primitive two-part fibulae (like those used by women today to tie their hair back, made of leather and a wooden pin), similar to those found in Alaka Húyúk, Anatolia, from 2400 BC. c.

Two silver specimens exist in the Tiahuanaco National Museum in La Paz, Inca.

110. Fibulas or safety pins, of an element, twisted on itself. Europe since the Bronze Age. A broken copper copy from Argentina. Silver hoops with fibula closure, Peruvian coast.

111. Hoops in crescent-moon. Ancient Mediterranean.
Peruvian coast.

112. Hoops with two or more spirals.
Ancient Mediterranean. Sumatra. Andean zone, NOT Argentine. A specialized form

from Sumatra and Peru.

113. Hoops with naturalistic figures, flowers, zoomorphs, etc. Ancient Mediterranean. Andean area.

114. Nose ring, placed in the center of the nose, usually made of gold. Ancient India. Canaanites, Phoenicians, biblical Jews, Carthaginians, current Eritreans, etc. Imitated two in shell in Melanesia. They are missing in China and Japan. Great diffusion in America, where they acquire large shapes, the same as in Sumatra. Olmecs in Mexico, Vicús. A specialized Phoenician form, in the form of a small torque, is found especially in Colombia.

115. Figures of animals, or humans, on the edge of metal vessels. Ancient Mediterranean. Andean zone, many imitations in ceramics in the Andean zone and Mesoamerica.

116. Coin-axes, very thin and of no practical use, dull. Ancient Mediterranean, Brittany. Equal in form in Aryan India, the Ganges, Ecuador and Mexico.

117. Metal coin plates, originally imitating a cattle skin, thin, especially in copper; in the ancient Mediterranean (where they were called talent) up to half a meter long, but with minor forms of subdivision. Shapes

altered, more elongated, iron structures in recent black Africa. Likewise elongated in the Mississippi, where they were used as

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INDIGENOUS BATTAK FROM SUMATRA WITH LARGE ORNAMENT ON ONE EAR. According to Helen and Frank Schreider, In Island Nation, p. 617. This ornament is worn on only one ear. The shape of this ornament is

second Eastern Bronze Age, also enters Africa where it is used today (not as earmuffs
America appears specifically in Colombia, in quimbaya gold human statuettes, which

The tupus or pin shape spreads to the Argentine NW.

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ornament. Other elongated shapes in the Pert, Lima Gold Museum. We have a small and short one, 6.5 cm., from Lambayeque, where we are told that there are thousands of them, made of copper.

118. Standardized metal weights for weighing gold and silver. In the form of zoomorphic heads in Assyria, Egypt, Crete, etc.
In gold among the recent achantis of the Guinea coast. Cited by chroniclers on the coast of Ecuador and northern Peru.
Due to their zoomorphic forms they have not been recognized as such until now.

119. Gold and silver jugs, of multiple shapes and sizes, some with human and animal figures on their sides. Previous Asia. Ancient Mediterranean. Peru, Ecuador, Colombia, etc. Mexico even, cited by the conquerors.

120. Bowls or dishes of gold, silver and copper, smooth or with embossed decorations in relief. Phoenicia, ancient Mediterranean general. Peruvian coast, generally smooth; Ecuador, embossed.

121. Metal jugs with raised or bias-cut spouts, or at an angle, others with trifoliate spouts, ancient Mediterranean. In

America imitated in ceramics, the first especially in Mesoamerica and the Candelaria culture of NW Argentina; the second, abundantly found by us in the Yampará culture of the Valleys of Bolivia, etc.

122. Metal jugs and bottles with ringed and often openwork stems. Origin in Cyprus. Ancient Mediterranean. Indo-China, China. Lambayeque in Peru, Colombia. Imitated in ceramics in Costa Rica and Santarem, Brazil. Same thing, Mississippi region, United States.

123. Vessels of various shapes with bulging projections, including in the shape of female breasts. Previous Asia, ancient Mediterranean, central Europe. Colombia, Ecador, Peru. Imitated in ceramics in Mesoamerica; the same in the Candelaria and Cóndorhuasi cultures of NW Argentina. Generally, in America they are interpreted as imitating pumpkins or various fruits.

124. Gold and silver vessels with various shapes of animals. Ancient Mediterranean. Persia. Andean zone of Colombia, Ecuador and Peru. Often imitated

_4 ceramics, especially in Mesoamerica, the Mississippi region and NW Argentina.

125. Metal human sculptures, in gold, silver and copper, which frequently have a mouth at the top, which is why they would serve as containers. Others, the original ones we believe, are pure statues. Ancient Asia and Persia, ancient Mediterranean, India, etc. Colombia, Ecuador, Peru. Imitated in ceramics among the Olmecs, etc., Mississippi area and NW Argentina. Chroniclers give us abundant reports of Inca gold statues, even life-sized, all of which were cast.

126. Various vessels or jugs, with two or more planes that join at an angle; This is imitated in ceramics in both the Old and New Worlds, and the form described is considered in European and Near Eastern archeology to be of metallic imitation. Andean zone, Mesoamerica, etc.

127. Various vessels with ringed foot. Ancient Mediterranean. Andes.

128. Chalices or cups, various shapes, with high stem. Ancient Mediterranean. Andes.

129. Tall glasses (keru, or aquilla in Qui-chua), with widely open mouths, without handle. Sumeria, ancient Mediterranean. Andean zone, widely imitated in ceramics, especially in Tiahuanaco, etc.

130. Tall vessels, of gold, silver and bronze, with open mouths, and with handles. Ancient Mediterranean. Andean zone, imitated in ceramics, especially in NW Argentina and Chile.

131. Tall vessels with a very naturalistic modeled human face or head, sometimes with two different human faces on each opposite side. Greece, Etruria, etc. In wood and ceramics in recent Africa, with clear forms derived from the Mediterranean. Andes. Imitated in ceramics on the Peruvian coast and in Mesoamerica. The shape with two faces, imitated in stone in Mesoamerica and NW Argentina.

132. Royal insignia of the scepter type, often imitated in stone. Ancient Mediterranean. Andes.

There is another set of cultural features or objects that have extraordinary importance, but in America, as far as we know, they do not appear made of metal, but rather imitated in stone, wood, ceramic, bone, etc. They are found in representations engraved in bas-reliefs, or painted, without us knowing the material from which they are made. The number of features of this class is very abundant, but we will limit ourselves to mentioning only a few types of fundamental importance to establish the original cultural level that indigenous America received through the Pacific. All the objects we mention below correspond to the end of the Bronze Age of the ancient Mediterranean and the beginning of the Iron Age, even later in some cases:

133. Bronze daggers, with the handle in the shape of a human or a human head in its termination, also animal forms. Peruvian coast, one broken in copper (Gold Museum, Lima), dagger-shaped ornament on in stone in statues of Nicaragua. Current forms among the Gé Indians of Brazil, in wood. (Shape of the handle on an obsidian sword from Mexico).

135. Swords similar in shape to the previous ones, with the blade widened towards the tip. Current forms of iron in Africa.
In wood, Peruvian coast.

136. Swords of bronze and iron, straight, with handles ending in the shape of double spiral antennas; typical of Halls-tatt from the first Iron Age of central Europe, etc.
Imitated in stone, with loss of the tip: Colombia.

137. Iron sabers, curved shapes

that do not originally exist in bronze, of large size, imitated in
wood on the Peruvian coast.

138. Iron machetes, with shapes

WOMEN BATTAKS FROM SUMATRA WITH A STRANGE HOOP. The first of them has a strange and great
This type of ornament spread in Europe with the "Torc Bearers" at the beginning of the 19th century.
reached Indochina-Indonesia and America; It was used in various types of decorations, mainly

In Peru we find them like rings. From "Globus", 1892.

a crown of gold. Copper and imitation daggers
tations in stone, English Columbia.

134. Bronze swords, straight, with double edge and point,
imitated in wood, handle details immediately comparable to the
ancient Mediterranean. Two engraved

that do not exist in bronze, imitated in wood, stone and
bone in Oceania (patús); America, various places.

139. Bronze mace heads, especially of the Persian type,
imitated in stone in Oceania, and especially in Vicús, coast

northern Peru, Costa Rica and western Mexico.

140. Stone axes of various shapes, especially those
with Egyptian fins, imitated in stone in the Andean zone, and
with wide diffusion to eastern Brazil and the Antilles.

We stopped treating another series of shapes of ceramic,
wood, etc. vessels, with shapes

varied metallic items, such as those with high and flat handles, metal type, canteens, sealed ornaments, etc., which can be compared in dozens of shapes and ornament details.

With the facts just presented, we have more than doubled Rowe's negative comparative facts, and we have done so by referring to only six of his comparative traits, while presenting them by interpreting them positively. It is indisputably clear, we believe, that all Andean metallurgy is a derivative of the ancient Eastern Mediterranean, sometimes adopting artistic details from its passage through southern India and Indochina-Indonesia. And this not only in terms of the form of a few external details, but also in terms of work techniques, shape of the objects obtained, practical or decorative uses, etc., and finally we find imitations in other materials the forms typical of there that are not found in America in their original material. Can all of this be interpreted in a negative sense, that there are no relations between them?

We don't believe it. We believe that such a position can only be sustained starting from an absolutely arbitrary conception or image of the world, maintained by a priori moral concepts, contrary to any system of scientific reasoning.

Our list of 140 similar features between the ancient Mediterranean and the Andean zone could easily be increased, at least with more than 200 comparative examples since we have grouped some features together, such as the shapes of the necklace beads.

If we expanded the comparative list of the sixty traits that Rowe presents to us, for example, to those of architecture, ceramics, clothing, etc., instead of the six used, the number of American traits matched rented with the ancient Mediterranean would immediately rise to 1,400, and we believe that even to well over 2,000, since the list it is not complete. Otherwise, on our list

THE DOUBLE SPIRAL HOOPS OF SUMATRA IN AN IDOL OF SILVER CHIMU. According to LG Lumbreras, Ancient Peru, p. 289. It represents a warrior in a helmet and armor, holding a silver cup in his hands. Of interest is the hoop it presents, in the shape of a double spiral, which in the whole world we only know it that way, used as a hoop, among the current battaks of Sumatra. This double spiral shape spread throughout the world in the Second Bronze Age, but only in those two regions was it used as a

attention

There may be more than one error, as there is in Rowe's list, but time will clear that up. This number is infinitely superior to the entire set of features of the Far East that the "shy" diffusionists have dealt with, and reveals that indigenous America received, in its high culture, a majority of features of the ancient Mediterranean, which later , since a little before Christ, were being replaced by others from India and China.

Finally, we will add another comparative list, made by Dr. R. Heine Celdern, in his work Die Asiatische Herkunft der Súda-merikanischen Metalltechnik (The Asian provenance of South American metallurgy), p. 367. The author, as we already know, is unaware of South Asian navigation and has the elements he deals with arrive by land through Europe, China and Dong-son. The influences would have occurred on the Pacific coasts of Peru, first from central China and then

go from Dong-son, around 700 and 400 BC. C., respectively. Half of the items listed here are not on our list, and we purposely did not want to merge them.

Summary. Here I list, at once, all the ornamental forms and motifs of the middle Andean region, for which we have found correspondence in the Old

World.

1.

10.

11.

12.

13.

14.

124

Disc pins. Caucasus. Ecuador, to the Argentine NW.

Spiral sheet metal pins. Caucasus, Peru, to NW Argentina.

Double spiral head pins.
Caucasus. Borneo (recent), but probably originated in the Dong-son culture; NOT Argentinian.

Pins with animal figures as heads. Caucasus.
Peru.

. Pins with a bird figure like

head. Caucasus. Peru.

Pins with two animal heads. Caucasus, Peru, Bolivia.

Pins with dog and cér-vido motif. Caucasus. Peru.

Hole pins with striped rod and nail-shaped head.
Caucasus. Peru.

Pins with openwork hollow heads.
Caucasus. Ordos. Ecuador. Peru. Bolivia.

Pins with thickened head and side eyelet.
Caucasus. Ordos. Ecuador.

Arm ax with widened neck
chado: Hallstatt culture (iron).
Ordos (bronze). Peru, to the Argentine NW.

Pipe axe. Hallstatt.
Dong-son. Peru.

Tubing shovels. Dong-son.
Peru.

Star-shaped club head

15.

16.

17.

18.

19.

20.

Machine Translated by Google

21.

22.

23.

24.

she. Caucasus (bronze). East Asia (stone). Ecuador, to NW Argentina (stone, copper, bronze).

Protome (bust) of double animal.
Caucasus. Bolivia.

Tweezers. Hallstatt culture. Caucasus. Tongking (recent, but probably originated in the Dong-son culture). Indonesia (same).

Peru.

Open ring with coiled ends two in spiral. Hallstatt culture. Caucasus. Cambodia (undetermined period, but form probably originating in the Dong-son culture).
Peru.

Double spirals, S-shaped. Cauca-so. China (late Chou period style). Dong-son culture. Peru.

Belt closure, decorative pieces respectively in openwork in frames decorated with double spirals, in S. Caucasus. Peru.

Bells as accessories.
Caucasus. Dong-son. Peru.

Pearl rope motif. Culture

Hallstatt. Caucasus. China (late Chou period style). Dongson.
Ecuador. Peru.

Pipe hoe as a handle. Tagar culture in southern
Siberia. Peru.

Bronze mirror with eyelet-shaped handle. Tagar
culture in southern Siberia. Peru, to the Argentine NW.

Bronze or mirror disc with animal figures on the edges.
Ordos. NO
Argentinian.

The author then tells us that the objects presented in numbers 1 to 21 all originate from the First Iron Age of the Caucasus and the Hallstatt culture; In our view, their diffusion would be derivations of the metallurgical expansion produced in the orientalizing era.

Chapter III

Representation of the Pacific coasts of America on maps from Roman times, and then Indonesian, at least from the 1st century onwards.

then of the Era.

1.—Discovery of the representation of America on Roman and then Indonesian maps; knowledge of the Pacific Ocean.

The interpacific relations of the American indigenous civilizations with those of the Old World, are proven indisputably with what we affirm now: in times a little after Christ, the American coasts of the

Pacific are represented on a map from Roman times, a copy of which is preserved, and which copied an earlier lost one.

of which a copy had been preserved in Indonesia.

The most extraordinary thing about all this is the following fact: that Roman map is the best known and most reproduced map of antiquity.
But it had to be interpreted, which was not so difficult: Columbus had it and with it he interpreted his discovery of America well. This was later denied and his knowledge was lost until now.

day.

In 1970 in Buenos Aires we published a small book, extensively illustrated, in which we presented the discovery that we had made the previous year, and which is summarized in the title: The representation of America on Roman maps of times of Christ.

This chapter is a summary of that work, while adding new later discoveries.

This discovery was even a surprise.
prey for ourselves, despite our dedication for so many years to make interpacific comparisons, since we had never expected to find evidence of such magnitude.

When reviewing the great work Aux Portes de l'His-

toire, directed by Stuart Piggott, on the sheet of plates facing page 291, we find a map of the Far East of Asia, from a 1460 edition of the Geography of the Egyptian-Roman author (90-168 of the Era) Claudius Ptolemy or Ptolemy, as others write. We had seen Ptolemy's world map many times before, but we had not been struck by the fact that on that map of the extreme end of Asia, the Bay of Bengal, the Indochina peninsula (whose southern tip was called Golden Chersonesus) appears. = Horn or Golden Peninsula), then a Bay smaller than that of Bengal, although more incoming, and then a strange land that, from the south of China, heads south almost straight.

Naturally that land does not exist (in that place), and we knew that it has generally been

. considered a land of mythical nature, or

the Chinese coast falsely arranged towards the south due to “obvious” error.

Then several things caught our attention

things: firstly, that this gulf, smaller than that of Bengal, was called Sinus Magnus, that is, the Great Gulf. Then, in that “mythical” land two important outgoing capes appeared that reminded us of the similar points of northern Peru and Ecuador. Next, we related the set with an “abnormal” map that we had seen twenty years before, published in Spain in a work commemorating the Discovery of America at the end of the century. On that map (by Oroncio Fineo, 1531) it was seen, and indicated in the text, that in maps after Magellan, South America had been strangely interpreted as an extension of southeastern China.

It was late. We point to the side of Ptolemy's map: “America? Search for other maps.” In

PTOLOMEO'S WORLD MAP, reproduced from the first Latin edition of 147 in the edition of ancient map of Ptolemy preserved. The Indian Ocean is an “enclosed” sea and, at its extreme American, arbitrarily brought together by Ptolemy until uniting them with South China, continued It only has 1802 of longitudinal extension, instead of the 225° that Marino de Ti assigned it.

The next morning we got up early, worried, and looked for the other old maps we had; An hour later the discovery that seemed impossible was confirmed:

These supposed mythical lands at the eastern end of Ptolemy's world map represented the American coasts of the Pacific.

co, from the middle part of Mexico to the middle of Peru.

And perhaps the most surprising thing is that this had been recognized for half a century by geographers after Magellan. Even on Ptolemy's map, on what must have been the northern coast of Peru, at 8° 30' south of the Equator, a city appeared with the evidently Hindu name of Cattigara, and that name had been reproduced in numerous maps at least between 1526 and 1550, in the same situation on the Peruvian coast, so that there could be no doubt that in those times this identification of the alleged mythical lands of Ptolemy and the American coasts had been carried out. mentioned.

In the following months and years we continued

the study. The reports and data that we were obtaining multiplied: many other maps appeared in which the aforementioned identification of Cattigara with the north of Peru appeared, and also the notable fact, which must be added to the glory of Columbus, that he He was the first to make that identification, as will be seen in his own maps (or those of his brother).

There is also the very important fact, to understand the geographical problems that occurred with the discovery of America and the opening of the route to the Indies by the Portuguese, that a few dozen years before those discoveries a profound geographical error had occurred. , apparently by the work of the Italian geographer Toscanelli, whose map (disappeared) served as a guide to Columbus in his Discovery, and whose consequences affected all European maps of his time and until half a century after Magellan-El Cano, with his return to the Globe.

That mistake was wrongly placing China and Indonesia on the world map made, by making a bad combination of the reports ancient geographer Marinus of Tire and Ptolemy with Marco Polo's description of the coasts of China, Indochina and Indochina itself.

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WORLD MAP OF PTOLOMEO. One of the various forms with small modifications that are presented to us. which is possibly the most simplified and clear to understand the whole of what it says. town of Cattigara, located in the lands of the Far East of the same.

Sia. We will explain this better later, but to understand this error it is best to see the various maps that we present, especially that of Martín Behaim, those of Marte-llus, the reconstructions of the map of Toscane-lli, and those of Columbus or his brother.

Another series of reports also appeared in our research:
Ptolemy was not the original author of the Geography he wrote; The first author of the work was a Phoenician geographer called Marinus of Tyre, from half a century before, whom Ptolemy copied, interpreting and adapting it according to his ideas. That is to say, both authors, both Marinus of Tire and Claudius Ptolemy, were cabinet geographers, they did not travel, but Marinus collected and transcribed the reports and itineraries given to him by traveling merchants, both land and sea, whom he questioned intensely, asking them where they were going with their ships, port by port, as well as the distance and direction in which they traveled, etc. With these reports he wrote a Geography that seems to have been very well known and important, but which has unfortunately been lost; It is assumed that it occurred in ancient times, although there is a report by the Arab Al Massudi, geographer and traveler, who cites it directly in the 10th century, as well as his maps, saying that both one and the others were better than those of Ptolemy (Enc.

Brit., t. XVII, Art. Maps). We believe it is possible that

Some copies of it still exist in unknown Arabic manuscripts.

Ptolemy worked in Egypt, and had in his hands the work of Marinus, which he reformed according to his ideas about what real facts in geography should be like.

In those times, all educated people accepted without discussion the sphericity of the Earth, which had even been conveniently measured by Eratosthenes and other authors regarding its diameter, but no one still thought that the Earth moved. The generally accepted interpretation was that the Earth was the immobile center of the Universe, while its inhabited part was at its top; On the other side, below, according to some, lived the antipodes, who lived upside down, while for others there could be no inhabitants down there, it being all water.

Marino apparently believed the entire surface of the Earth was habitable; Ptolemy no. Consequently, Marino, according to the reports of the maritime merchants whom he consulted, gave the inhabited and known Earth (Ecume-ne), an extension of 225 degrees, starting from the Fortunate Islands (today the Canary Islands), to the extreme east, which meant invading a quarter of the bottom of the spherical world.

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THE BASIC MAP OF OUR DISCOVERY THAT AMERICA WAS REPRESENTED ON THE MAPS OF PTO-LOMEO. From the History of Cartography, CODEX Editorial.

It represents India outside the Ganges, and it is easy to see that, under the so-called peninsula of the Golden Chersonesos, there are the representative islands of South Sumatra, which is why it must automatically be recognized that Sumatra is merged with Malacca, and Ditto Borneo. Java is reduced in size to less than one seventh. In front, the American coasts of Peru clearly appear, increased in proportion to more than double their real relative size. Cattigara is located at the southern end of them.

co. Naturally, Marino used the measurement of the Earth's circumference at 360".

Evidently, Ptolemy did not accept this, since it seems that for him the lower part of the Earth could not be inhabited, and for the same reason he reduced Marino's figure by 45°, that is, he reduced them to 180%, the upper half of the cir-

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FROM NORTH

North Pacific GE

earth circumference. To do this he had to bring the eastern land closer to Cattigara (America) until it merged with the southern coast of China. In other words: it suppressed the Pacific Ocean. Hence, the name Sinus Magnus, which he reduced, sounds arbitrary on his world map when applied to a small gulf, when its very name indicates that it is a large gulf, the first interpretation of the Pacific Ocean.

Both Marinus and Ptolemy start from the Meridian of the Fortunate Islands (Canary Islands), and count the degrees towards the east. In this, both Marinus and Ptolemy exaggerate the longitudinal extension of the best-known lands (Marinus a little, Ptolemy much more), and thus, according to Ptolemy, Europe is a third larger.

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PACIFIC OCEAN
FROM THE SOUTH

West Drift

MAP OF MARINE CURRENTS, the presence of the Equatorial Counter-Current matters, which
Borneo heads directly to the coasts of Colombia and Ecuador, and that corresponds exactly
merchant Alexander, to Marinus of Tyre.

ARBITRARY RECONSTRUCTION OF MARINO DE TIRO'S WORLD MAP, made by PF Gossellin, in 1
Crossbowmen. It is evident that Ptolemy's map has been strictly followed here, they stretch
East until reaching 2252, with which it has been possible to preserve the proportions of
Magnus has hardly been augmented, even though he must have been seven or eight times. Fa
especially noted by Ptolemy. It is also important that in the reconstruction it has been suppressed
Marino de Tiro attributes a distance of 1252 from the Canary Islands to Trapobana, and from to
reduced the latter to only 502, and that is the first thing to be considered in the reconst
is that all the value of the reports on America given by Marino de T has been hidden.

longer than it really is; Asia is almost fine, and the Pacific Ocean, which manifestly existed in Marinus, is suppressed in Ptolemy's map. Both Marinus and Ptolemy assumed that the diameter of the Earth was a quarter smaller than it actually is, and this explains the stretching of the European lands, or rather the Mediterranean, while the distances of the most distant lands are reduced.

Marinus of Tire was the first, with partial antecedents in Hipparchus, who pointed out the use of meridians and parallels to represent terrestrial distances, according to 360°,

but he made a mistake: he did not consider or did not know

represent the circumference in that representation, so that his world map was distributed in a uniform, elongated grid. This is what Ptolemy criticizes most and, consequently, he copies it and perfects it by pointing out the curvature of the meridians towards the

North Pole, correcting the errors that Marino makes in this regard; Then, when what Marino says agrees with his thoughts, he copies it without mentioning it, and thus converts it into his own work.

We repeat, the main alteration that was made Ptolemy's work of Marinus was to place the eastern lands at 180°, which Marinus placed at

225° in the same direction, thereby eliminating the Pacific Ocean, which Marino had also greatly reduced in extent. If we see a current map, the Eastern Lands with Cattigara, according to Marino, calculated at 225° from the Canary Islands, should have been located approximately around Tahiti; but we must not forget that both Marinus and Ptolemy exaggerated the length of the Mediterranean and southern Asia, so that, in reality,

ity, we are a little behind New Guinea. Nor should we forget that what we know about Marinus is only what Ptolemy tells us about him.

The maps that we reproduce, and what we say later, will better clarify what has been said, which is undoubtedly partly confusing due to the amount of data that must be examined.

Let's move on for the moment to more recent events. Columbus discovered America on the basis of the data of Marinus of Tyre, which was apparently rediscovered in the work of Ptolemy by Toscanelli, although he misinterpreted things by relating them to the data of Marco's return trip from China. Pole. The expressed geographical error prevented the understanding of things, but at the same time it caused and allowed the discovery of America, as we have already said.

We must point out that after a few

years of the discovery of America, there were two types of different interpretations about the position that the American lands occupied on the surface of the world. Both were based on Ptolemy's world map, in addition to the data added by Toscanelli, and his erroneous interpretation of the reports from Marinus of Tyre. Now, it happens that only the second of these interpretations is documented, while the first of them is usually unknown, and in the histories of Geography it is only cited in unconnected fragments. The first of these interpretations is that of Columbus himself, when

put Cattigara on your maps; the second is.

the one we know traditionally and which was inaugurated in 1507, with the world map of Martín Waldseemiiller, in which the name of America appears for the first time. The second interpretative idea predates the aforementioned author, but it was he who perfected and imposed it.

ILLUSTRATIVE MAP OF THE GEOGRAPHICAL IDEAS OF COLON WITH RESPECT TO

scala meridional media

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the basis of Columbus's concept (southern coast s =~ „7

Waldseemúller, as will be seen in the maps that we reproduce, placed the American lands according to the description of the coasts of Brazil, etc., made in the much discussed letters of Amerigo Vespucci, as corresponding to a Fourth Continent, totally independent. of the three traditional ones of the Old World, and without any relationship with the “Eastern Lands” and Cattigara of Ptolemy's world map, although he copied Ptolemy in everything regarding the Old World, reproducing Cat-tigara even there. Waldseemiiller did that, but Vespucci, who followed Columbus's interpretive ideas, did not say it. It is true that later, in 1516, he implicitly retracted this, but no one paid any attention to him. He also repeated Toscanelli's great geographical error. In reality, Waldseemiiller was both right and wrong; saw a fundamental thing (it seems that he calculated better than Columbus and Vespucci, the lengths of

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Asia according to contemporary knowledge, which formed AY Eastern Coast of Asia according to 03.

according to Ptolemy, edition printed in 1478, extended e:

goes beyond Cattigara along the eastern coast mm according to
Behaim 1492).

eastern end of Cuba, which Columbus took for Asia. length to
conform it to Marino de Tiro: continuous- ~ Coast of America in accordance with
N laCosa, 1500, incorporating the discoveries up to that date.
Coast lines in their true position according to modern maps.

idea of taking Cape Zaitun to the same meridian as the

mm Sue Route to follow Columbus along the Coast
Asia on his fourth trip and the continuation that at
one point he thought he would follow to arrive

gar in india

MAP PRESENTED BY S. de MADARIAGA IN HIS WORK ON COLUMBUS; showing the known world and would have served as the basis for the Columbian discovery. All ideas are falsified Behaim's world map, which can be seen by the placement of Trapobana (supposed Ceylon when in Marino it corresponded to the height of Cape Koru in South India. It is realized that it is reproduced in the reduced form of Ptolemy, and the 302 of Toscanelli are added, since Indonesian placement. With maps like the present one, understanding has been distorted. the interpretative ideas of Columbus and Magellan have been falsified. See both Barto maps

interpretation of the case with respect to Central America.

the location of America), but he stopped seeing others no less important; Since it is long to explain, we better refer to their maps and the comments we give on them. What is not conceivable is that all the histories of Geography and Maps have been based on it, ignoring the other interpretation.

Later, geographers, after Magellan's voyage, and even earlier through knowledge of eastern maps, which are almost never cited in the history of geographical discoveries, recognized Columbus' identification of the Eastern Lands of Marinus and Ptolemy. with America, although they did so with another series of errors, which we will see briefly later; Later, half a century after Magellan, this identification was denied for political reasons at the time, and then it was “forgotten” until now, although there are countless ancient maps that present both types of interpretation.

THE NAME OF ZABAI OF PTOLOMEO, preserved to this day on the island of Borneo, to designate its NE region, as can be seen in this map, taken from the Espasa Encyclopedia, Art. Borneo, volume 9. This name is also written Sabah, Sabak, and Zabax, and appears in Arabic references prior to the European discovery of those regions. Arab sources also tell us the existence of a kingdom with that name, not well located in terms of its location and time of its existence, but corresponding to the Indonesian islands. Ptolemy merged Zabai with the Malay Peninsula, in his effort to reduce the extent of the extreme eastern regions.

The importance of eastern maps, especially Arab ones, was such that Magellan's own journey was possible and was made on the basis of their knowledge, especially that of a Javanese map that the Portuguese obtained when they conquered Malacca in 1511. The Portuguese admiral who obtained that map wrote to his king that “this is the best thing I have ever seen” (Crone, p. 104). It is intended, and it may be, that this map was lost in a shipwreck, but in reality

In any case it was copied before being sent to Portugal, where it was carefully hidden, so that it is currently unknown to us.

But there were then those who copied it and published it as their work, and this is preserved.

But the serious thing about these maps, a copy of the Javanese map, is that they show the Pacific coasts of America, at a time when no European navigator had yet discovered them. Furthermore, in these maps, copied from Javanese, the distance indicated between America and the Indonesian islands follows the shape and guidelines of Marinus of Tire and not those of Ptolemy. Also, for more than half a century, European maps of the Far East were based almost exclusively on that Javanese map. Magellan made his trip around the world based fundamentally on that map, according to the data we have about the distance he believed existed between the strait that he “discovered” (was that strait on the Javanese map? We don't know). , but it is not impossible) and the Moluccas islands what I was looking for.

We make a section outside the objective of our work. We are always told that the Portuguese tried to reach, by going around Africa, the Spice Islands (very necessary, then, in Europe more than as a condiment to preserve meat), as an obligatory route, since the Mohammedans had closed the way to them. The reality is the following: Venice had this trade in its hands and was in very good relations with Mohammedan Egypt, which was also enriched thanks to it; The Genoese, commercial rivals of the Venetians, promoted the Portuguese discoveries, and when they opened the road to the Cape, an economic catastrophe occurred for Venice and Egypt, to such an extent that the Venetians sent their best smelters of cannons to India to teach how to make them so that they could defend themselves against the Portuguese (the Easterners did not know naval artillery at that time). The attempt or help arrived late and Venice was ruined and much more Egypt, as well as other Arab countries, so the Turks were able to conquer them.

A final point here: we can be asked if what we say regarding Ptolemy's world map and its representation of the American Pacific coasts is true. How is it that such a great discovery does not figure in the history of Western peoples, especially when it comes to times immediately after Christ, about which we have so many historical reports?

We believe that the answer is the following: it was not Alexander with his conquests, nor the Roman military expansion, that established the contact with the existing knowledge already about the “American lands. They were simple merchants and semi-pirate adventurers, when they appeared.

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Codex Borgia, according to Seler, plate 31. Interpretatively, representation of the time of l

appearance as morning star, 77 days. Then, the west of the Lower World and the Ixquimilli. On the sides in the corners, various dates are represented.

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It was the occasion, those who came to American lands, in search of gold and other precious objects. And the history of those simple merchants does not normally appear in History with a capital letter. But the facts, accompanied by illustrations demonstrating the existence

Tendency of this trade, we believe that they are sufficiently clarified with the graphic evidence that we present.

What has been said above is the explanation and comments about our discovery;
Now we will go to its specific facts.

2.—The problem of which island was Trapobana and the representation of America on the maps of Marinus of Tire and Ptolemy.

All the originals of the old maps have disappeared. Archaeologically, there are some partial representations, therefore useless for our work, of local areas of Mesopotamia and Egypt; About ancient Greece we have news that there were important maps, but all of them have also been lost; Today there is a whole series of reconstructions of them, made according to the vague descriptions preserved of the vision of Homer's Map of the World, of maps of the Ionian School, of Eratosthenes, of Strabo, of Hipparchus, etc. , and these already interest us, since those "re-

HEBREW-PHOENICIIAN WORLD MAP FROM
AROUND 950 BC Reconstructed by Hermann, based on
data from the Book of Jubilees or Little Genesis, whose
sources would be even older than those of the
biblical Genesis. The orientation is. towards the South, although
here it has been rebuilt with a North orientation. In

In this book there is a description of the commercial world of the Phoenicians in the 10th century BC, and there it is cited, Gadir in Spain (which does not appear in the Bible), the Garden of Eden (which is located in Ethiopia), etc. The reconstruction, however, seems to have been incomplete towards the East, since the Persian Gulf is mentioned, which has not been represented.

Note the four mountains that occupy the cardinal points.

From the Book of the Jubiless

(mainly from Los cap Vil
And IX) with the help of Genesis M1, 10 -le and X ("names
preceded by an asterisk)

constructions" have greatly impoverished ancient geographical knowledge, as we will demonstrate shortly. We also have some ancient maps of China, but all of them are much later than the Era. We do not know any kind of ancient maps of India, although we do know drawings mythically representing the World in the form of a flower. The ancient maps, whose originals we possess, do not go beyond the beginning of the Middle Ages and are a terribly impoverished reflection of previous knowledge. It has been rebuilt

a Phoenician-Hebrew map, based on data from the Book of Jubilees, which we reproduce, even more impoverished than what is done with the Greek maps.

We are interested, from the beginning, in clearly clarifying the fact of the impoverishment that is always done to the oldest Greek maps in these reconstructions; We are referring to the maps of Anaximander, Strabo, Eratosthenes, Hipparchus, Pomponius Mela, etc., the latter already Romans. In these reconstructions the representation made of the then known world never goes beyond India and the island of Trapobana, the latter identified as Ceylon. We present some of those maps, where you can see the identification that is always made of Trapobana with Ceylon, but which constitutes a complete and serious error: Trapobana was Sumatra, and that was recognized since

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well before the geographical discoveries, when that island was already named that way on the maps; and it is recognized in texts by numerous authors, for example Pigafetta, the chronicler of Magellan and El Cano. But that has not been incorporated in the reconstructions of said maps, due to another ancient error, made by Ptolemy, which we will see later.

RECONSTRUCTION OF THE MAP OF ANAXIMANDER, 6th century BC. There are other somewhat different reconstructions. The world has been represented in the shape of a disk in the center of which is Greece; An “Ocean River” surrounds all the inhabited lands that were called Ecumene, according to José Anesi. As almost always happens, the representation of the East, even the next one, like Persia that could not fail to be known, is not here.

THE EXPANSION OF THE PHOENICIANS. This is one of the few maps we know of that marks the historical expansion of the Phoenicians (which was undoubtedly much greater), instead of just showing their expansion through the Mediterranean only. It matters that his arrival in Borneo is marked, even with a sign of doubt. Greek and Roman traders had the same expansion towards the East, but that is never shown on the corresponding maps. From: Reclus, Man, The Earth volume ll.

To fully prove that Trapobana was Sumatra, we will cite another fact that at first seems unrelated, but it is very much related. Herodotus does not tell us about Trapobana, but he is the only ancient author who tells us about the return to Africa by the Phoenicians, by order of Pharaoh Neco, leaving through the Red Sea and returning.

looking over the Strait of Gibraltar. We are interested in the final detail of Herodotus's relationship:

"After two years had thus passed, in the third year, rounding the pillars of Hercules, they arrived in Egypt, and they related what would not seem credible to me, although perhaps it is credible to them."

someone else, namely, that sailing around Libya (Africa) they had the sun on their right hand…" (Herodotus: The Nine Books of History. Book IV, para. XLII).

Precisely the detail that is not credible to Herodotus, that "they had the Sun on their right hand," is conclusive proof that these navigators circled Africa.

It now happens that we have a similar piece of information about Trapobana, which makes its identification with Ceylon impossible, but which seems not to have been noticed until now. The Roman naturalist Pliny reports, in fact, that in the years 50-55 AD, the monarch of Trapobana sent an embassy to Rome. We do not have Pliny's work at hand, so we quote it through another author, who also believes that it is from Ceylon:

"The envoys actually arrived in the capital of the World. At least Pliny's chronicle suggests, in a way that leaves no room for doubt, that the four dark characters, splendidly dressed, from the equatorial regions, were in Rome. "They were amazed when they saw the North Star and the Pleiades, as if it were a new sky," says Plinio, apparently surprised in turn. And then he continues:

"What they missed most, however, was the fact that in our country all the shadows were directed towards the north and not, as in theirs, towards the south and, furthermore, that the Sun did not rise on the right and was placed on the left, as happens in their land, but on the contrary... Of India they said that, on the other side of the Emodic mountain ranges (Hi-malaya), lived the beings with whom they traded... It seems that it was tall people, with blonde hair, blue eyes and a very rude voice, not appropriate for speaking."

(Hermann, Paúl: History of Geographical Discoveries, volume I, pages 163-64).

It is evident that Pliny confused many

of, SCYTHIA
<A

Bactrian

RECONSTRUCTION OF THE PLANISPHERE OF ERATOSTENES, 1st century BC Very simplified here is another
with many more names but they do not expand the known lands. The Atlantic Ocean surrounds everything
for the North. Africa is called Libya. A detail allows us to clearly see that he knew them
much larger than those depicted here; The island of Ceylon has been called Trapobana, after

name already corresponded to the Island of Sumatra. According to José Anesi.

Note here that if Trapobana is Sumatra, as we demonstrate in the text, what has been
be the Yang-she River of central China, so all of East Asia has been very

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WORLD MAP OF S. SEVERO, from the 11th century. According to C. Kretschmer. Oriented towards the East. Although
With respect to the maps of classical antiquity, this map marks an important advance
which became purely geometric in the shape of a T. America appears here as the islands

REMAINS OF A SHIP BURIED ON THE PERUVIAN COAST?

In the work of Fray Antonio de la Calancha: Moralized Chronicle. Bolivian Library. No. 1. La Paz, 1939, pp. 45 and 46, we find the following:

"The Provincial Father, Brother Juan Pedro Simón, in his book Conquest of Tierra Firma, tells me that it is effective proof that there were inhabitants in this Peru before the flood, to have been found in Callao (port of this city of Lima) at the beginning, When the Spaniards entered a hole that was discovered to have mines inside it, a ship different from the ones we used, covered with a large earthen machine, and which was made of

when the flood flooded the universe. Three things he needed to find out first, if there were more ships in the flood than the Ark, and if there are mines in Callao, or there were when the Spaniards entered, but he did not prove this (which was not even remotely true for the who gave him the news; the inevitable misfortune of those who have to write for reports, did not prove the antiquity of men, but the antiquity of ships..." (emphasis added).

We have not consulted the work of Brother Simón, but the criticisms of La Calancha are absurd, especially the last one: if there were ships there were men. The summary that results from what has been said is contradictory, since it speaks of a mine shaft and inside a ship covered with a mound of earth; The sinkhole thing is unnecessary. It seemed to be a buried, funerary ship, like those used by the ancient Wikings. We do not believe it is impossible, and it would not be strange if something of this had existed on the ancient Peruvian coast. The copper and bronze staples or staples of the architecture of Tia-huanaco, etc., are copies of the seams and nails of ancient maritime architecture, and we have seen real copper and silver nails in the museums of Lima.

reports: the Pleiades are visible all over the world, so what must have surprised those ambassadors was their different position; The North Star is also visible in both Ceylon and Sumatra, so its position, much higher on the northern horizon, must have also surprised them. The most important thing is the fact that the Sun rose to the right, something that only happens south of the Equator, and completely only south of the Tropic of Capricorn.

The thing about "turning to the left" is another poorly understood report, but long to explain, so we do not deal with it.

Ceylon is, at its southern end, more than five degrees north of the Equator, so the ambassadors could not come from there;
Sumatra, at its southern tip, is about 7° south of the equator;
Java even more so, so

These ambassadors could only come from Sumatra or Java, preferably from the former, as was later recognized, as we have already said. In this way, it turns out that in the reconstruction of ancient maps about 30% of ancient geographical knowledge has been suppressed, since Sumatra had to appear there.

Shortly after the Era, in Egypt, the Romanized Egyptian geographer and astronomer Claudius Ptolemy, who lived from 90 to 168 AD and was especially distinguished for his astronomical works (he is the author of the famous Almagest, basis of Arab and later European astronomical science), wrote a voluminous work entitled Geography, accompanied by a world map and numerous partial maps. The work was preserved in the East, although it is assumed that its maps were lost, but they were reconstructed or copied in Byzantium around the 11th or 12th century, and this is preserved. In any case, his data in the preserved text are so abundant that an approximate reconstruction of his world map would be possible, since it gives us 8,000 geographical points with their latitude and longitude.

Ptolemy's work, we have already said, was copied from that of Marinus of Tyre; Later, in addition to manuscript copies that circulated previously, it was published several times in print from the mid-15th century in Europe, along with its maps, and these began to influence the geographical knowledge of that century, a time in which it was translated into Latin in Italy; In reality, this already happened before, since the Spanish Arabs had their own translations of Ptolemy. In the interim, during the Middle Ages, maps were made, but they were very impoverished, and had largely reverted to the older conception that the world was a flat disk.

MAP OF WESTERN MEXICO from 1574, according to Ortelius, where the coasts of the Pacific Ocean appear called Sinus Magnus, demonstrating the total identity made then with the Pacific Ocean.

Ptolemy did not have the reports in his hands first hand from the navigators and land travelers obtained by Marino, but he copied what was said by Marino, and sought to complete and perfect it, especially with regard to the curvature of the meridians, and also with respect to his idea (possibly corresponding to the academic science of his time) that only the upper part of the World (conceived immobile) was inhabited, and therefore reduced the 225° longitude of the Marine World to 180° of the middle of the terrestrial circle. That is to say, he eliminated 45° in extension from the known world, in the Far East, which must have been easy for him, since there the Ecumene was represented in Marinus by a large area of sea, corresponding to the Pacific Ocean, the Sinus Magnus .

On Ptolemy's world map the old continent appears almost complete: Europe is quite well drawn, although very stretched longitudinally; Africa, to the west, does not reach the Equator, including the Canary Islands, which were taken as meridian 0, and in the east it barely exceeds 15° south; Asia extends with Arabia and the Red Sea, the Persian Gulf and India (very poorly done, since it is not pointed towards the south); Ceylon appears much larger than it is, far surpassing the Equator to the south, and is called Trapoba-na; It follows the Bay of Bengal and Indochina, where the Golden Chersonesos is, which today is supposed to be the Malay Peninsula; Sumatra and Borneo are inexplicably merged with Malacca, but the small islands of southern Sumatra appear, which proves that it is merged with the Golden Chersonese; a little towards the SE appears Java, with only one seventh of its real size; Passing Indochina, the southern coasts of China appear a little and then, the continental land turns southward, until just over 15” below the Equator; From there begins an “Incognita Land” towards the west, which unites the aforementioned with eastern Africa; This last land is more or less mythical, but it must have contained some information about northern Australia.

or

The “Tierra Incógnita” refers only to that southern land,
which unites what is described with Africa, and not, in any way, to
the Land of the
East, which extends from southern China towards the south and
reaches just over 15° below the
Ecuador, since it points out a series of

ports and cities and numerous geographical names of
capes, rivers and mountains; almost all with names that sound
Persian and Hindu. The eastern coasts of China do not
appear, and the Eastern Land presents only its western coasts,
without the eastern ones appearing, which were evidently unknown.
Among these Eastern Lands or Indochina is the Sinus Magnus, with
only about 8° wide, which in the

Thus there can be no doubt that these Eastern Lands represent
the American coasts of the Pacific.

However, in 1562, for “political reasons”, GK Mercator, made
a “reinterpretation” of the Eastern lands of Marinus and Ptolemy
that is maintained today by all authors. He assumed that Ptolemy
made a mistake, copying a similar error.

ORIEN You

Tanais (R.Don)

Paradise
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M Mediterranean

EXTREME DEGENERATION OF MAPS IN THE MIDDLE AGES. One of the so-called maps in the form of impoverishment that
maps came to in the early Middle Ages. The orientation is towards
placed above, and there Paradise is represented with Adam, Eve and the serpent. According to Edwin

The work of Marinus of Tire must have been at least 45° larger and, in that case, there can be no doubt that it is the Pacific Ocean.

co.

Furthermore, it is also evident that Marino was frightened by the distance the navigators informed him of (he expressly speaks of the exaggerations they make, and he reduced that ocean to less than half, almost to a third, placing the Earths from the East approximately to the final height of New Guinea, but still

lar of Marino, and directed southwards the coasts of China that were heading northward, consequently placing the city of Cattiga-ra, and others on the Siberian coasts of the Sea of Okhotsk, much further north from Japan. The fact that the aforementioned author respected the distance indicated by Marinus (that is, he added the 45° suppressed by Ptolemy) is important, but the same has not happened with the most recent authors, who have placed Cattigara on the southern coasts of China and even in Malacca.

Sinus

Magnus

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Ry Small Islands to Y
South Sumatra

THAT

THE “FUSION” OF SUMATRA AND BORNEO WITH INDOCHINA IN THE INTERPRETATION OF PTOLOMEO. By reducing Pacific, Ptolemy was left with very little space to locate Sumatra and especially B Indochina peninsula, while reducing the size of the island of Java by seven times its size. on your map What at first appears to be the peninsula of Malacca in Ptolemy is clearly proven by the presence of the small islands existing to the South of Sumatra that do represent that navigation was not done through the Strait of Malacca, but along the south coast from where one reached Zabai, in NE Borneo. Reconstruction made by Ibarra Gras

Such error is impossible; the merchant sailors who traveled to that Eastern Land and who informed Marino about their itineraries could never have been mistaken in that way; At that time, and until the 16th century, it was possible to be wrong about distances in longitude, but not in latitude; That is to say, sailing towards the east (or west) the distance could be wrong as to its extent, but there could never be an error as to the direction towards north or south, not even in the degrees with respect to the equator. The shadow of the mast over the ship was enough for the most clumsy cabin boy to know the direction in which they were sailing with respect to the Equator.

In the text and the copies of the maps that we have from Ptolemy, even the fundamental details of the northern coast of Peru and part of the Equator are presented, with its projecting capes, to which names are given, and it is impossible That this is the work of a coincidence. A series of geographical and city names follows, all of which

located exactly, in longitude and latitude; We already know that in Ptolemy we do not have to take longitude seriously, but we have facts, such as the location of the city he calls Acathra and which corresponds exactly in latitude to the prehistoric city of Teotihuacán in Mexico, which had a great development in That moment. Can this be considered a simple coincidence?

Most of the geographical names that Ptolemy gives to what we assume to be American lands are of Hindu origin (Acathra and Aspithra would be Persian names, as indicated by the use of th and this tells us that the Hindu merchants were the ones who at that time Then they arrived in greater numbers to America; but there are some local names that seem to correspond to indigenous American languages, such as the Ambastus River and the town of Sarata (in Ecuador), of Quichua-Aymara physiognomy, and which today They exist as geographical names.

If this is true, they are the first indigenous words that appear in history.

Tire Sailor

MERIDIAN
ISLANDS
CANARY ISLANDS

MERIDIAN
ISLANDS
CANARY ISLANDS

Ptolemy

OCEAN
PACIFIC

POLO CATIGARA

THE REDUCTION MADE BY PTOLEMY OF THE LONGITUDINAL DISTANCE OF THE KNOWN EARTH (ECUMEN
Meridian W of the Afortunadas Islands (Canary Islands) to Cattigara, Marino de Tiro gave a di
of light on the earth's circumference; That was equivalent to invading a quarter of the length of the surface, with the corresponding
12 hours of light, so that only the upper part actually reduced the extension of the Pacific Ocean (Sinus Magnus) to only 8° 30", while

Reconstruction made by Ibarra Grasso.

But it would not only be Hindus and Persians who then sailed towards America. Marinus, reproduced by Ptolemy, even gives us the itinerary followed by a Greek merchant, named Alexander, who sailed to Catti-gara, on the northern coast of Peru; We will see it soon in more detail.

Let us remember that Ptolemy practically merges all of Indonesia with Malacca, leaving aside only the island of Java, reduced to a seventh of its size to make it fit in the space that remains. So he had to transfer the name of Trapobana from Suma-tra to Ceylon. Marinus, transcribed by Ptolemy, tells us that in Alexander's itinerary, After the Golden Chersonesos, one reaches the town of Zabai, and Ptolemy locates Zabai on what in the current interpretation would be the current southern coast of Indochina, with little difference from the northern latitude of Borneo; Now, it happens that the northern part of Borneo that faces the Philippines is called Zabai, Sabak and Sabah, and there are Arabic reports in geographical descriptions that place that locality, like an ancient kingdom, in the Indonesian islands. sias, at the end of the 15th century, before the Portuguese arrived in those regions. Another detail: Ptolemy indicates a town named Samaradi, on the coast before reaching Zabai, and today there is a town in eastern Borneo called Samarinda, before reaching Sabak.

Well, in Alexander's itinerary, according to Marino, from the town of Zabai, which is reached in twenty days of navigation from the Golden Chersonesus (with evident navigation through the south of Sumatra and entry through the Strait of the Sonda), you have to set a course, first to the south and then to the left (which would be the east, since Marino used a southern orientation) and, following that route, after "such a large number of days that he has not been able to be counted", you reach Cattigara, without any intermediate stop, that is, without following any coast. *

If we now look at any map, we see that from the north of Borneo, sailing first towards the southeast and then towards the east, we directly encounter the equatorial countercurrent, which leads straight towards the Colombian coast. Ecuadorians of America. And this solves the problem of the course followed by merchants like Alejandro, which cannot be explained in any other way than by altering the facts reported. go from there

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TRADE ROUTES OF ROMAN SHIPS THROUGH THE EASTERN SEAS, according to J. García Tolsa. Fal
Persian merchants (or Parthians then) traveled the same path. It is also necessary to indicate
Eastern Borneo and the Philippines. Ptolemy's town of Zabai is placed, following

only in 1819), and the same Acatra, placed in present-day Cambodye. Cattigara has been eliminated

the main center of gold metallurgy in the entire American continent, as we will see.
With good reason, no doubt, merchants

They were heading there.

To Cattigara, which at 8° 30' from the Peruvian coast coincides with the current Virú Valley, was easy, although we believe that Cattigara was a little further to the north, in Piura; that is, it was

A FALSE LOCATION OF CATTIGARA.

Map by Paul Hermann, showing the lines of commercial traffic in the Extremum East in the time of Christ and centuries after. The author tells us that the Strait of Malacca route was usable for only two months a year, at the end of autumn and beginning of winter, so the normal route was to pass to South Sumatra and enter through the Sunda Strait, between this island and Java; From there two different routes were followed towards China. Up to this point everything is fine, but the aforementioned author places Cattigara on China's border with Tonquín to avoid the question of communications with America. The second route, which passes behind Borneo, is of interest, since that is evidently the route that

indicates Marino de Tire to reach Zabai, North Borneo.

And

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To Sopatina (Madras)

Drs

(Taprobana)

Land and sea routes
~ Maritime routes

We believe that the trip should have lasted between three and four months, and this explains why Marinus of Tire did not dare to tell us the number of days that Alexander undoubtedly mentioned, and others, perhaps, believing it to be "exaggerations of the merchants", as we he says, which is why he ended up placing the Eastern Lands (i.e. America) much closer than they were in reality. Ptolemy moved them closer, until they were placed next to the southern coast of China, eliminating the Pacific.

dor. At that time, several centuries ago the circumference of the Earth had been measured by several well-known authors (there are references that the Sumerians and Babylonians had also measured it, and this shows that they conceived it as spherical). The first was Era-tosthenes, whose measurement seems to have been close to the real one, but which was later considered by several authors to be exaggerated, and reduced by a third. Fratosthenes gave 252,000 stadia to the earth's circumference, and then Posidonius

SINUS
MAGNUS

Cattigara

Terra incognita 2250

SINUS
MAGNUS

Cattigara \e

Unknown land

POSSIBLE RECONSTRUCTIONS OF THE TRUE SHAPE OF THE MARINE SHOOTING MAP; according to the author
according to the guidelines of Ptolemy's world map, but expanding, accordingly, the Sin
Cape Koru is made to agree with what Ptolemy says, that Ceylon is Trapobana, in
North Sumatra, as most probably corresponds (for it is undoubtedly that ancient Tra
corresponds better with the 1252 indicated by Marino to Cape Koru. In both cases
American coast of Peru is absolutely undoubted. Terra incognita would correspond to
Northern Australia and New Guinea. It is worth adding that in all reconstructions
Sea of Tyre, the coasts of South Asia were stretched, but the S had never been expanded
I manifest that it had to be done.

3.—Analysis of the reports and maps of Marinus of Tire and Ptolemy in their data on the American lands.

He reduced them to 180,000, which would give about 40,000 kilometers for the first and 28,000 for the second; but the details are not certain, since stadiums of different lengths were used,

Both Ptolemy and Marinus conceived the Earth as spherical, at the same time immobile in the middle of a Universe that rotated around it.

which varied between 156 and 185 m., and we do not know what kind of stadiums each author used; without . doubt, they too were confused when considering

WORLD MAP OF FRA MAURO, FROM 1459. The original is 67 cm. in diameter and here it appears very r
oriented backwards, that is, with the South up. The author is influenced by Marco Polo and Ni
suppressing the southeastern extension of Africa, the same as suppressing the Eastern Lands with Earth as a flat disk, Fra
Mauro indicates that it is a sphere. Apparently Tuscan

Ptolemy's Eastern Lands in the wrong way.

derate the stadiums that the others used
authors.

Eratosthenes considered 700 stadia per degree; Posidonius 500; Marino, according to the majority of the authors we have consulted, also gave 500 stadia to the degree; but Bert-helot tells us that each degree of Marinus was only 400 stadia. Naturally, all these ancient authors already used the distribution of the Earth's circumference in 360°, resulting from measuring the circumference according to the quantity.

date of the days of the round year of Sumerian origin.

We must also take into account the hours of light of the Ecumene, which are 24 in 360°, that is, 15° correspond to each hour of light. Marino establishes the longitudinal extension of the Ecumene in 15 hours of light, the aforementioned 225°, and Ptolemy, consequently to the reduction he makes of it, establishes it in 12 hours. It should be noted that the Compass Rose

It was already known several millennia before, and we believe it was also a primitive compass (not linked to the Compass Rose), consisting of a small piece of lodestone embedded in a cork. Proof of this is that we know several old buildings oriented in the north magnetic polar position, something that cannot be achieved without said object, but since the topic is long we leave it for another occasion.

Ptolemy then exaggerates the size of Europe, in terms of its longitudinal extension, due to the reduction he makes in the size of the degrees (500 stadiums instead of 700), increasing its length by a third, which indicates that at the base it had real measurements; Then, in South Asia, the degrees and longitudinal extent are less exaggerated, but in far eastern Asia, the actual extent is greatly reduced to further distance the degrees it accepts. Marino exaggerates Europe less and even less South Asia, which has not been warned, but it is very important for us.

In all the authors we have consulted, it has been considered that Ptolemy's work simply contains a uniform longitudinal reduction of Marinus' data, but this is totally wrong. One detail is that, for Marino, the extension of the Ecumene towards the

WHOLE INDIA
GANG F FA

south of the equator it reached 24°; Ptolemy reduces that to just over 15°; The difference is important if we look at the eastern coasts of Africa, opposite Madagascar, which Ptolemy suppresses.
It is even more important with respect to America, because with 24° south the Tropic of Capricorn is passed, and the northern coasts of Chile appear.

In what we are going to present now we will especially use the work of André Berthelot, in the absence of being able to deal directly with Ptolemy, although our interpretation is totally contrary to that of the author we are dealing with.
We will remove the details to make the matter more understandable. Until the time of Marino, it was calculated that the Ecumene (the known and inhabited land) was about 125° in longitude (first from Portugal, and then from the Canary Islands) to the Canges (we have already seen that it was known until Sumatra, that is, Trapobana, 125° if we count its southern part and that means about 115°); Marino increased the length of that knowledge by 100° and added it to 125°, according to the reports he received from the navigators. Those 100° were not counted from the Ganges, apparently, but from Cape Koru, located south of Trapobana. Now, the problem is knowing if, for Marino, Trapobana was Sumatra

or Ceylon. The latter has always been assumed, where there are about 100°, but we believe that Marino was better informed.

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INDIAN OCEAN

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carambaro

Beragua

Boyom

porto grosso

chersonesos

Reterete vessel

Catching firecrackers in the bathroom

LOCATION OF CENTRAL AMERICA ACCORDING TO COLUMBUS, ON PTOLOMEO'S WORLD MAP. Bartholomew's sketch discoverer, drawn in 1505, which shows the concept of both about the new coasts of the Indian Ocean of Ptolemy (with a first addition that was not known to be located, of the Magnus and Cattigara to the east, and on the other side forming the opposite coast, the discoveries Toscanelli peninsula with Cattigara has been drawn extremely narrowly, due to existence of a great sea on the other side, which Columbus correctly identified with the Sinus M

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SITE OF CHINA

SECOND SKETCH OF BARTOLOME COLON, from 1505, where the concepts of the sketch are expanded coast of South America continuously to Central America, and then the supposed co Ptolemy's China. Cattigara appears in a place that would be the South of Panama, undoubtedly to Magnus. The identification of the new lands with South America is total, and this is that appears there: opposing those who maintain that C. Colón died without knowing that Conversely, North America continues to merge with the tip of Asia.

Ptolemy places Cape Koru north of Ceylon, and the last mouth of the Ganges at 146°, so we clearly see that Ptolemy exaggerates the distances more than Marinus. With the 100° more, until reaching Cattigara, Marino completes his 225°. Ptolemy reduces that to 50°, by eliminating the Pacific.

As we see, it would be essential to know where Marinus counted those 100° extra, but what we have seen is contradictory, due to the reductions made by Ptolemy. Then Mari-no seems to count about 40% more until the

port of Zabai, but that is deduced from Ptolemy. We have about 60” left to Cattigara, according to Marino, and Ptolemy reduces it to 8” 40'.
In other words: what Ptolemy fundamentally did was reduce the extension of the Sinus Magnus by more than seven times.
With this consideration alone, we see that this is actually the Pacific Ocean. And that, even if Marino counted the degrees from Ceylon.

The inevitable result of all this is that the Eastern Land, with Cattigara, Acathra, etc., cannot be anything other than the coasts of the Pacific.

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Trapobana
New World

THE IMAGE OF THE WORLD THAT COLON FORMED ACCORDING TO HIS LATEST DISCOVERIES. Meeting of the d made by B. Columbus, which are attached, drawn in 1505, after the last voyage discovered at the edge of Asia as represented on Ptolemy's world map. America d natural extension of Asia, but Central America is perfectly recognized as a temple of Ptolemy, as seen by the location of the Sinus Magnus and Cattigara. South America Mondo Novo, extends like a huge peninsula that continues to Southeast Asia; the pre shows us that Columbus died knowing well what he had discovered, contrary to what he the Asian coasts. It is observed that Columbus took the wrong latitudes on all these coasts, p Ecuador, for which the entire map would have to be raised from there to Cabo de Luna and a lot. The island of Cuba is missing, no doubt voluntarily omitted. Reconstruction of Ibarra G

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THE MAP BY PIRI REIS, a Turkish author from 1513, which shows the entirety of the American coasts then known to the West. What matters most on this map is the continuation of American lands to the South. in a similar way to what appears on Lopo Homen's world map of 1519, which copies the same sources. The rest of the map is missing, which at the eastern end should have coincided with Lopo Homen. Note that what appears to be the coasts of North America are actually the coasts of the extreme of Asia, and that what has been interpreted as being the island of Cuba is actually Japan, which can be easily seen by comparing its shape with that of Zipango on the map of Behaim. Piri Reis obtained the data on America from a Columbus's sailor who was a slave. The figuration of the Río de la Plata is important, supposedly discovered by Solís in 1516, which would prove that Portuguese navigators arrived there before, and news of this reached the hands of Piri Reis.

A series of absurd interpretations have been made about this map, claiming that it represents the American coasts as they were around 7,000 BC. Photo and authorization from the Map Library of the Ministry of Foreign Affairs. Rio de Janeiro. BRAZIL.

from America. The Sinus Magnus, Golfo Grande, is the Pacific Ocean, and calling it that cannot mean anything other than direct knowledge of the Japanese current (the Kuro Siwo), which originates in the Philippines and ends on the coasts of California and western Mexico. . This route must have been known at the time as the most direct route of the equatorial countercurrent that Marino describes, and it is to it that he must have given the name Golfo Grande, since when navigators traveled along it they would almost constantly have land on their left, giving them the impression that they outlined a large gulf.

Also, by placing the lands with Cattiga-ra about 60° east of Zabai, it would automatically make the eastern Chinese coasts appear (which Ptolemy suppressed), and that cannot have been missing from Marinus' map.

To see clearly that there is no logical possibility of the incredible “error” that would have occurred in Ptolemy, following Marinus, with respect to the location of the coasts of China (which would have mistakenly been directed towards the south), We reproduce below a small table of Ptolemy's latitude measurements (which we collected from Berthe-lot), copied from Marinus, and which are almost exact. To say that Marinus and Ptolemy “made a mistake” and directed the coasts of China southwards means that they had an error of more than 40° in latitude, and this is inconceivable, given the almost complete accuracy of the following measurements:

According to

Ptolemy True

Alexandria 310 31° 09'
Sera (capital of
North China 38° 35' 34° 15'

ANONYMOUS WORLD MAP OF 145 7, which has been identified as coming from Toscanelli, before discovering Marinus of Tire in Ptolemy and his correspondence with the court of Portugal.
Personally, we do not consider this identification very secure, meaning that the present map has already been made by Toscanelli. It corresponds to a more longitudinal extension with Fra Mauro's map. Taken from Levillier, America the Well-Called, t. |, p. 17. Photo and permission from the British Hybrid Board.

Palibothra (capital

in India) 27° 25° 30'
Babylon 35° 32° 32'
Athens 37° 15' 37° 39'
Rome 40° 40' 41° 54'
Marseille 43° 05' 43° 15'
Colony 51° 30' 50° 26'
Tanger 35° 55' 35° 40'

The differences are minimal, considering time and means. Certainly in other parts of his work Ptolemy's measures fail much more, but they are isolated cases, and for the same reason it cannot be accepted that

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MARTIN DE BEHAIM'S WORLD MAP WITH ITS TWO HEMISPHERES, from 1492, made when Columbus returned

Discovery. Seen spreading from South China, the large, false penis

island that contains the town of Cattigara and that is

resembles South America. That peninsula is the same one that appears on the maps of Tuscany interpreted by Marinus and Ptolemy, with more contributions from Marco Polo; by mistake it didn't show placed behind that great peninsula. Note another error notable for having been made in

In the entire series of following figures (referring to the Eastern Lands), Ptolemy (Marinus) was wrong:

Acathra or Acathara 21°15' North
Aspithra 16° 15' He
Bramma 12° 30' ”
Rabana 8° 30'
Coccaranagara 2 Sur
Thinae 3° g
Sarata 4° 15' 'i
Cattigara 8° 30' A

All these figures refer to cities located in the Eastern Lands (that is, America), and another 14 localities are added, with names of rivers, capes, etc., all of which cannot be persistently erroneous, And even less so when the two main capes assigned to that Eastern Land coincide with points on the northern coast of Peru. The names assigned to these places are mostly Hindu, not Chinese, and this reveals that Hindu merchants were the ones who dominated that trade at the time. It is the time of recognized, historical, Hindu expansion in Indonesia.

It is important to clarify the following point: Ptolemy places, as we see in the previous table, Thi-nae, which he calls Metropolis, connected with Cattigara in the Eastern Lands. Nowadays it is supposed to have been the capital of China at that time,

know things: Greenland is placed in the center of Scandinavia, and south of Lap and that name comes from the Tsin Dynasty (225 to 206 BC). This interpretation is accepted by the majority of authors, but the name of Thina or Thinae appears in Eratosthenes as that of a town in the Far East, before that Tsin Dynasty existed. However, there is no doubt that the name was later identified with that of China, but was the Thinae described by Ptolemy today's China? We do not believe it. If it was, he mistakenly placed it where it shouldn't be. Proof for us that it was not is that, long before, it was known that the capital of China was “under the Bear”, that is, that astronomically it coincides well with Sina, the capital of North China mentioned in the first table above. We will expand on this: there are, incompletely preserved, at least two itineraries describing commercial voyages to the Far East; The first of them is a Peri-plous maris Erythraei, made by an Alexandrian merchant, whose age some estimate before Christ and the majority about 80 years after the Era. In it it is evident that Thinae is identified with current China, or rather, with a large capital city of the same, from where trade was carried out with India, etc.; but it is evident that it is not Ptolemy's Thinae, since the author tells us that "the country is directly under the Big Dipper", and this indicates an extreme situation in northern China, impossible to confuse with the

Thinae located 3 degrees below the Equator that Ptolemy mentions to us. Furthermore, we have not read that Periplous and we do not know its exact data.

The second itinerary mentioned summarizes it for us Ptolemy, copying Marinus, and consists only of a few loose lines; In Berthelot we find the summary of the case, and we reproduce what interests us:

“From the Chersonesos, the itinerary related by a certain Alexander provides only vague information: 20 days of navigation.

tion towards the east until you reach Zabai; then, a certain number of days from this port to Cattigara, heading south and then turning left, that is, towards the east or northeast. It seems that Marino has exaggerated, above all, the distance between Zabai and Catti-gara..." (Berthelot, page 150).

“Marino does not specify how many stadia the navigation is from the Golden Chersonesus to Cattigara; It says that Alexander wrote that the land beyond is at south and that those who follow its coasts reach the city of Zabai in twenty days; which, sailing from Zabai towards the south and then to the right, arrive, in a certain number of days, at Cattigara” (Berthelot, page 390).

On page 410, Berthelot tells us that Ma-rint used, to indicate the distance from Zabai to Cattigara, a Greek indefinite adjective that makes the number of days uncertain, which Marino interprets as being such a large number of days that it cannot be be enumerated, while Ptolemy considers it simply as “many.” The difference is notable and deserves consideration, especially since no intermediate port is mentioned between Zabai and Catti-gara, a detail that implies an oceanic route.

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RECONSTRUCTION OF THE TOSCANELLI MAP USED BY COLON, from 1474. The other reconstructions They present minimal differences with this one. Marc's information was interpreted here Ptolemy's world map, when attempting to reconstruct the 2252 length of Marinus of Tyre. Adv by Martín Behaim at the same time that the other hemisphere would exactly represent the world map of with the description contained in Toscanelli's letter copied by Columbus. Taken from José A

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straight. If it were a simple tour of

the Chinese coasts, could not have been missing'

those intermediate commercial ports.

We have already said that Ptolemy, when merging Borneo with Indochina, must refer to what appear to be the current coasts of the south of Cochinchina to Zabai, but that name is preserved to this day referring to northern Borneo.
According to the data cited, the merchant Alejandro leaves Zabai towards midday (south), we assume rather to the southeast, and then to the left. The left in this case is, without a doubt, the east, located to the left of the south.
That is precisely the necessary path

to find the beginning of the contraco-

equatorial current, which originates there and heads straight towards the coasts of Colombia and Ecuador, following a path that goes a few degrees above the equatorial line. And there are no islands or possible ports that interrupt this path, so there is no doubt that there must have been innumerable days necessary to complete that journey.

It is possible that everything said may seem like a daring interpretation, due to the lack of historical documentation of the case, but to that we respond that what is reported about Alexander is historical news;
We could also refer to the following: just as it is common to represent the Greek commercial colonies on maps

WESTERN PART OF THE WORLD MAP OR SPHERE OF GERMAN SCHONER, from 1515. It shows the lands of America following Waldseemúller, and to the South of them the Southern Lands called Bra
strait that has been assumed to be both the Magellan and the Río de la Plata. In reality
as seen by its position with respect to Indonesia, falsely placed after the sup
southern South America). For the rest, he copies Martin Behaim, and inserts America from
first appearance of the Southern Lands on a map of that time, and it seems to us that this

The Portuguese.

and Phoenicians in the western Mediterranean and in the Black Sea (although the ancient Phoenician colonies in the Black Sea are forgotten) there were also similar Phoenician, Greek and Roman colonies on the coasts of India, Indochina and Indonesia, and that is never mentioned in history does not even appear on maps. They have even been found in archaeological studies: for example, in 1945, in the vicinity of Pondichery (former French colony in southern India, opposite Ceylon), the remains of a Roman trading colony, currently called Arikamedu (Poduke calls it Ptolemy), even with the remains of a Roman theater, which shows its importance. The same thing has happened in Oc-Eo, Cochinchina, where there was a colony nia corresponding to the ancient civilization of Funnan, which was like a branch of Arika-medu, and where numerous objects of Roman, Persian and Egyptian origin have been found.

Even Greek craftsmen arrived there in times before the Era.

We could multiply the evidentiary citations, but we consider it unnecessary; We do add that much of the art of the Far East, even from recently Chineseized southern China, derives that way, from the Mediterranean and Persia. What we have just said does not appear in History, because it is not about the exploits of the great conquering generals, but it is or was the humble and continuous work of maritime merchants, who ended up reaching lands

THE SINUS MAGNUS ACCORDING TO REINEL IN 1516.

Scheme of the part corresponding to the Sinus Magnus, in the chart composed by Reinel around 1516, preserved in Paris. Taken from the Treccani Encyclopedia, volume XXI, page. 881. The original undoubtedly contains many details that we do not know. The “Malaque Ins”, according to their position, correspond to the Philippine Islands, while the true Moluccas are called “Serrano Islands”.

“Seilan” is without a doubt Borneo. The set of the Sinus Magnus represented here is greatly enlarged over what Ptolemy presents to us, about seven times, and that can only come from the map of Marinus of Tyre, preserved in Indonesia and objectified on the Javanese map. The American Pacific coasts are undoubtedly represented by their distance from

Americans from the aforementioned regions.

These eastern colonies of Phoenician, Greek and Roman merchants should appear on historical maps, but we do not know of a single case in which this is the case.

4.—Old maps. The reconstruction of Marino's map by Toscanelli; the Javanese Map; the preserved one from Marino, and the one from Magalla-

because.

Here we could deal with a whole series of ancient Western maps, also oriented them, Chinese, in which a disputed eastern land called Fu-sang appears, which was once attempted to be identified with America, but which was later denied. Still, it is Fu-sang that interests us. In the 18th century, a Chinese writing from the 6th century was found, which recounted a trip to the country of Fu-sang and, as the indicated distances coincided, efforts were made to identify it with Mexico, but since it was accompanied by fantasies , such as the existence there of elephants and horses, etc., this relationship was already denied in the last century, and today it is said that Fu-sang was Japan, mentioned long before Fu-sang in the itinerary of that trip. It is true that there were no elephants in America, but were there any in Japan?

Western scholars have tried to reduce the existence of Fu-sang to that pretended or real trip but, as A. de Humboldt tells us,

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Indonesia, although they are willing to Insvla a third of their actual distance. Look at the column of

degrees, to see the expansion of the Great Gulf.

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For the Chinese, Fu-sang was a country of mythical riches, located towards the Rising, frequently cited by poets, and we believe that it really represents American lands.

But now we care more about the fact that the maps of Marinus and Ptolemy ceased to be known in Europe for a thousand years, after the decline of the Roman Empire; On the other hand, they were preserved in Byzantium and were early known by the Persians and Arabs, who developed, thanks to them, their geographical science. During that time, in medieval Europe, maps became poorer to regrettable limits, which it is better not to discuss, although we reproduce some of them.

Later things changed: astronomers
The Arabs managed to measure the circumference of the Earth with greater precision than Eratosthenes, determining, fundamentally, the extension of the degree, but, in Europe, only the

Spanish geographers, mostly Jewish fugitives from Arab persecutions, became aware of this. We quote a detail

lle to see the accuracy with which they tried to make the measurements: the Chaldean astronomers of the Hellenistic era came to measure not only seconds, but also thirds (called scruples in old Spanish), and the Arabs, in turn, came to measure fourths and fifths.

Also at that time there were several trips.

jes of European merchants and ambassadors, especially Italians, to the lands of East Asia, and the knowledge of those distant regions was once again represented on the maps. Extremely important in this was Marco Polo's trip and his description of the Far East, where he deals with the coasts of China, Indochina and Indonesia, and his return to Europe through South Asia, as well as another Italian traveler, Nicola Conti, who was in Indonesia and was the first to recognize that Trapobana was Sumatra.

Then the Europeans copied the Arab maps (generally based on that of Ptolemy, through Byzantium) we see it, for example, in the Jewish-Spanish maps of Sañudo and

in the Catalan Atlas, where Trapobana is already identified with Sumatra. Then, in 1459, Fra Mauro left us an important map, which copies and perfects Sañudo, with the representation of the then known world; His map presents the Earth in a flat circular shape, but he had already re-conceived it as spherical and gave it 228° to the known longitude (returning to Marinus of Tyre, the lands of the Far East appear as such. as described by Marco Polo). Two years earlier, in Italy, Paolo del Pozo Toscanelli had made another map, considered anonymous for a time, which is of great importance, since it would have begun the great geographical error that

LENOX'S GLOBE, whose age is estimated between 1512-1520. As regards the Old forms of Ptolemy, with the great error of Toscanelli, significant in the false great peninsula It is South America known by the Eastern Way. North America does not appear because it is by the West, it appears as a large island or Fourth Continent according to the interpretation of W

of Brazil” in the place corresponding to Cattigara.

PEDRO REINEL'S MAP OF 1517, according to Cortegao, where Indonesia appears in a form that copied
Javanese, copied by Francisco Rodrigues. This is possibly the letter that we have preserved from 1516 by Reinel himself and those from 1519 by Lopo Homem, they are influenced by ideas of Pto
due to its extension towards the North, which does not close and forms a strait (shortly called strait
representation of Japan, very clear; then the undoubted representation of the Pacific coasts
United at least, and continuing to the North of Peru, without details, although the Pacific is very reduced, as it should be on the Javanese map. The Aust Lands are missing
due to the prohibitions of the Portuguese court, from representing the discoveries made
Spanish prohibitions. The clear representation of the Pacific coasts is especially important.
European had arrived there, the undoubted representation of Vancouver, and the one who distanced it

Tire sailor.

we talked before. At that time the Portuguese were already committed to discovering the coasts of Africa to reach India and almost all maps were oriented towards the south, not the north.

The Chinese, at the beginning of the 15th century, had a great maritime expansion: between 1405 and 1432, seven great Chinese expeditions toured South Asia and the African coasts, from where they brought giraffes to China, as proof that they had Africa tour. Chinese junks then reached between 2,000 and 3,000 tons. It is said that the Arabs took the compass from the Chinese and took it to the Mediterranean.

On the Catalan maps, that of Fra Mauro, etc., the Eastern Land, with Cattigara, had been suppressed. Later, as Ptolemy's work and maps spread, first in manuscripts and then in print, those Lands reappeared. Then a geographical error of tremendous consequences occurred: Marco Polo's description of the Chinese and Indochinese coasts was added to Ptolemy's world map.

and Indonesian islands, but without again expanding the Sinus Magnus, but putting all that behind

of the Eastern Lands with Cattigara. This error was evident from the beginning, since Ptolemy placed Java within the Sinus Magnus, but this was not noticed. The principles of this great error are recorded in the aforementioned map of 1457, attributed today to Toscanelli, which we reproduce together with that of Fra Mauro. Both certainly have many traits in common, and not only by copying Ptolemy, but Fra Mauro suppresses the Eastern Lands, while Toscanelli preserves them, further reduces the size of the Sinus Magnus and transforms the Eastern Lands into a kind of second Indochina, after which the Chinese coasts and some islands appear, especially Greater and Lesser Java. This “second Indochina” is not yet exaggerated in its geographical size (but it is the first time that Yava has been placed behind it); then its size increases. We do not know that intermediate maps exist until 1489, when the error is already manifest, the same as in Martín Behaim's world map of 1492, and it continues to occur in later maps until after the middle of the 16th century. The first of these maps cited, that of 1489, is by the Florentine geographer Henricus Martellus, who published a world map that is preserved and reproduced.

mos; There the error is manifest, as can be seen. The explanation for the error is that an attempt was made to expand the world map, as we have said, until it reached 225° Marino, but this extension was placed behind the Eastern Lands, instead of expanding the Sinus Mag-nus again. Three years later, in 1492, the famous Globe by Martín Behaim appears, created simultaneously with the discovery of America by Christopher Columbus; The same error is widely reproduced and Japan (Cipango) appears for the first time on a European map.

Same as in the so-called 'map of Laon', from 1493.

- It is evident that these maps copy another

previous, the first where that occurred

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interpretation error. That map has been lost, but it seems to be contained entirely in the famous letter of Toscanelli, written to the king of Portugal in 1474 and copied (that copy is preserved) by Columbus, and where it is said that the shortest path to India It would be the one from the west, crossing the Atlantic. Toscanelli's map of 1474 has been reconstructed several times

based on the data contained in that letter, and these reconstructions coincide in everything with the sphere of Martin Behaim, and in almost everything with that of Martellus. There is no possible doubt that Behaim copied Toscanelli, due to the detail of the placement of Cipango, and there is also no doubt that he learned of Toscanelli's map through Columbus. It matters the fact that in

MAPAMUNDI DE LOPO HOMEM, 1519, closed and signed, according to Cortegao. The map of Piri Reis rep
so it is certain that this was copied from the same, or from the same maps that Pi copied
which reproduces copies of Reinel's Javanese map (of which L. Homem was a disciple) from 1
by the authors we have consulted, and he has always been denigrated by saying that he copied or was surpassed. In reality it is a sum
of the knowledge of the moment, and in it it matters
South, which is identified with the east coast of Ptolemy and Marinus of Tyre. It also matters that
clearly indicated, something that Schóner reproduces and completes in 1515-1520. With a map how to undertake his great journey, where
he calculated the distance of only 600 leagues between the Estr

Behaim considers the Earth a quarter smaller than its real size, and Columbus had the same idea, even exaggerated.

We move on to treat Columbus. He was not an enlightened man, as is often said, but a true navigator who had even been a pirate; His voyages to Iceland and Greenland, as well as possibly to the coast of Guinea, are real, but it would take a long time to cover them.

His Jewish-Spanish origin is also certain, wherever he was born. Toscanelli's letter and map clarified his ideas about the discovery.

of the Old World, with its detail of the Eastern Lands, with Cattigara, and places the Central American coasts that he had just discovered on the opposite side to the coasts where Cattigara was located, that is, he fully identified the Eastern Lands of Ptolemy with America. To do that he had to modify Toscane-lli a lot, in terms of the width of those lands.

It certainly reproduces at the same time almost all of Toscanelli's errors, since he did not expand the Sinus Magnus and continued to consider that America North corresponded to the coasts of Asia,

SOUTH PART OF THE SINUS MAGNUS, according to Lopo Homem's detail map, 1519. The equinoctial line Sumatra (which he calls Trapobana), Java, etc., but on the other side, in the Eastern Lands Piura, that is, further towards the North than it is in Ptolomeo. The Pacific Ocean is as evident, as it should have been on Marinus of Tyre's map. The last river on the coast

means river. According to GAZ Cortecao.

projected brilliance, and the aforementioned reduction in the diameter of the Earth made it possible.

We are not interested here in the details of the discovery of America, but in Columbus's interpretation of what he discovered, and this is reflected in two maps, drawn by his brother Bartholomew between the years 1504 and 1505. We reproduce them and this is how they will look. things clear. We also make a joint map of both. In short, it reproduces the details of Ptolemy's map for the Asian coasts

so that South America broke away from South Asia forming a large peninsula, on whose west side he placed Cattigara; He even gave that great peninsula the name Mondo.

Novo, as can be seen on his map, despite the fact that we are always told that he died believing he had only discovered the Asian coasts.

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There is a map of America, very well known and reproduced, that of Juan de la Cosa, which is preserved in the Naval Museum of Madrid. It was elaborated

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NORTHERN PART OF THE SINUS MAGNUS, according to a detailed map by Lopo Homem, 1519. This map does not contain placement of the equinox line. Japan is clearly represented with the name Par 452 N., as on Reinel's map of 1516, instead of the 172 indicated by Ptolemy. It is copied although they try to unite that with Ptolemy. The American coasts are clearly represented It is seen by the placement of Tyna Fiv., carried far to the N. Further north, is the river corresponding to the current Balsas and Zacatula River, in Mexico. According to Cortegao.

It was created in 1500, but has data added up to 1505. It represents America, but later another part has been added, representing the Old World up to India. Figure there the entire north of South America; then, in the place where Central America should appear, the image of a Saint is represented (in order to signify the lack of knowledge of the region); The Antilles follow, in complete form (Cuba now as an island), and the coasts of what seems to be North America up to Canada and which - would be very complete, although deformed.

You have to look closely at that map, which we reproduce, to see what we mean: for the author, The Thing, as for Columbus, those coasts were not those of North America, but an extension of the end of Asia. , by strange as it may seem at first.

In those early days of discovery, geographers were quite puzzled as to the interpretation of the discovered lands. It seems that the maps and interpretation of

Columbus, and, shortly thereafter, South America began to be considered as a large island in the middle of the Atlantic, while it was thought that the known coasts of North America (Canada, Newfoundland, etc., recently discovered), were the last extreme of Asia, as clearly seen, for example, in Ruysch's map of 1508. The great geographical error was also reproduced, which resulted in the appearance of a kind of second Indochina, without realize that this formed a bloc with South America, as Columbus recognized. In other words: it was South (and Central) America known since ancient times by the East, and discovered by the West.

This had been warned by several recent authors, without drawing the consequences that resulted, when saying that there was a South America that had just been discovered by the West, while it was already known from ancient times by the East, and appeared on the maps.

We quote in this regard:

"...Well: this great peninsula called

East India can also be the American continent. Its enormity, comparable to Africa and superior to India, indicates this."
(Gandía, Enrique de: Primitive Basque navigators, page 102).

The same was expressed to us verbally by RP Guillermo Furlong, when we spoke to him about said discovery: he told us that he

He had been surprised when studying Waldseemiiller's world map of 1507, because it had seemed to him that South America was represented twice there. Our maps and their explanations save further comments.

We move on to the second topic of this title. The Portuguese, encouraged by the Genoese who sought to snatch from Venice the monopoly of the Eastern spice trade (which the Venetians carried out through Egypt), not only attempted, by sailing directly, to recognize Africa and round its southern tip, but also attempted to obtain all the possible news about the commentary and the eastern geography, and they sent a series of emissaries to the Arab countries to recognize the matter. As early as 1430, observers were sent to obtain a series of Arab maps. The best known of them was called Pedro de Corvilhán who, in 1490, obtained an Arab map where Africa appeared by the

Indian Ocean to the Cape. With this the Portuguese moved easily as soon as they managed to round that Cape.

We are more interested in a later event. GR Crone tells us, after talking about a Portuguese map from 1510, something important:

“Two years after having prepared these letters, the Portuguese came into possession of a notable source of information, described in a letter from Viceroy Albuquerque to King Manuel. It is nothing less than a large map, with names in Javanese, made by a Javanese pilot; It contained the Cape of Good Hope, Portugal and the land of Brazil, the Red Sea and the Persian Sea, the Nail Islands, the navigation of the Chinese and the Gores, with their courses and direct routes followed by the ships, and the solid land, and how the kings

they follow each other. In the words of Albuquerque “this is the best thing I

I've seen". This map was lost in a ship in 1511,
but Francisco Rodrigues drew a part, the most
important, with the transliteration of the names,
which was sent to the king.

“His Highness can truly see where the
Chinese and Gores come from, and the course

Berians, since the Portuguese and

passage of the traveler Marco Polo through the Strait of Malacca. This corresponds to the maps of Europe
The Spanish had better maps, as can be seen in Diego Ribero's map from 1529.

that His Highness's ships must take so much even than it seems. Yes it's true

to go to the islands of the Cloves, and where the Javanese map was lost in a shipwreck, the gold mines are located, and the islands Francisco Rodrigues had to copy completely - of Java and Banda, of nutmeg and mace, mind, and that copy arrived in Portugal. The proof and the land of the king of Siam, and how they do not have it, although no one has seen it,
They sail ahead.” the existence of later maps that reproduce

They guide the whole, and these copies appear on
Portuguese maps from 1515 to 1520, and even
many years later.

“Albuquerque did not waste time, and in
1512 he sent a small expedition to Banda. On
this trip one of the pilots was

mentioned Francisco Rodrigues, at the same time. but it was soon applied too

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PART OF THE GLOBE OF ORONCIO FINEO, from 1531, which follows and expands the details of Map of Mona

corresponding place on the Peruvian coast. Indonesia is in its place, with which it was known

Magnus. Trapobana is identified with Sumatra. On the other hand, the North Pacific and China are missing

identified with the Mexican region. To the North of Mexico, towards Texas, are the Tungusos. identified with the eastern end in Asia, so that all of North America appears f

Observe the position of Brasile Regio, in the South-East of the map, which is identified with Aust

eastern Asia. These letters are set by South America, if it did not correspond to them.

Cortesao around the year 1513. Those of the archipelago - this name from the beginning. The first place

lake are undoubtedly based on those of America named so with the coasts of Ecua- observations of Rodrigues, but it is from dor and Peru; Later the name was extended to assume that it also incorporated details throughout South America and, finally, it remained for the Javanese

letter. Rodrigues himself, the current Brazil, which was originally called Banda, did not go beyond. Some modalities of do by the Portuguese Tierra de Santa Cruz and its letters were for a long time common Tierra de los Papagallos. Australia retained the

to cartography; for example, the long name of Brasil Regio, at least until the exaggerated coastal profile of Gilolo (Hal- map by Oroncio Fineo of 1531.

mahera)...'" (Crone, RG: History of the

Maps, pp. 104-05). We do not have any of the Javanese map

complete reproduction, only some details The above
information is more important from the eastern islands copied by F. Rodri-

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DETAIL OF THE MERCATOR WORLD MAP of 1569, where you can see the location of the city
Bremen, etc.) in the extreme North of the Asian coasts, in order to deny that those locs
Greek, Roman merchants, etc. The current authors place Cattigara, without exception
coasts of southern China and Indochina. It matters that the author respects the distance that he indicates

gues. But this map is reflected in later Portuguese maps, especially those of the geographers Pedro Reinel and Lopo Homem, where new fundamental data appear: the great geographical error disappears, for the first time, and in its place the entire Indus is represented. -nesia and also to the entire Sinus

Magnus, but not in the manner of Ptolemy, but rather in the manner of Marinus of Tyre, that is, the Sinus Magnus is enlarged about seven times in size, with which America appears at the distance indicated by Marinus.

The fact has not been seen by anyone, as we said, but it is very real, and to prove the case

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REPRESENTATION OF THE AMERICAN CONTINENT AND ITS LINK WITH TICO ASIA, on the map of Milan 1571, belongs to the library of the University of Turin. Taken from the Labo Encyclopedia

Mercator, but maintains the previous interpretative ideas about the non-existence of es

It is represented by the name Patalix.

We will see another series of maps. The first of them is that of Reinel, which we reproduce, taking it from the Treccani Encyclopedia, and which is schematized. The original should present many important details, but we have not been able to obtain it. This map presents the Sinus Magnus in such a way that at first it can be taken for that of Ptolemy, although we quickly appreciate the differences. Fortunately, it has the equator line marked and the degrees of latitude up to 15° south and 45° north. Its longitudinal extension is not indicated but, measuring it proportionally, it is also 45° from Malacca to the Eastern Lands (America). Now, Ptolemy shows us only 17° 30' to the north in that Great Gulf and a little more than 8° of longitudinal extent. The measurements, then, on this map, clearly correspond to those of Marino. If we look at a current map, Ptolemy's measurements do not reach north or even to the southern coasts of China; those of Marino, as we have already said, must have been greater towards the north, and, in fact, those of Reinel's map show us Japan and the continental coasts that continue even above it, joining with North America. . The map is very simple and with few names, in the simplified scheme

that we have, but it is clear that it copies the Javanese map, according to the partial details of it, copied by F. Rodrigues, especially the shape of the Indonesian islands. It's called Mala-

which islands to the Philippines, which is clear from its position north of the equator. Borneo is called Seilam. The American coast extends, towards the south, up to about 25° and its limit is not indicated. The name of Paria, distorted into Pario-coa, is found on the Ecuadorian coast, along with the Gulf of Guayaquil, and this undoubtedly identifies those lands with America. Another deformation of the same name (Parioco) is applied to an island located to the north of the Gulf which, without a doubt, is Japan, and which has a shape similar to the Cipango of Behaim. To the south of Borneo, and under the Equator, there are some small islands called “Serrano Islands”, whose importance we will see later.

We move on to a second map, by Pedro Reinel himself, dated 1517, according to Cortes-sao; There appears most of Africa and the Indian Ocean, very well done, with India, etc.; then Indochina and the Indonesian islands, a little better than on the previous map; There are important differences with it, but the copy of the Javanese map is also evident, although made with greater accuracy (the previous map

is more influenced by Ptolemy); The Sinus Mag-nus is very extended towards the north and open, without being able to know if it closes towards the north, since the map ends around 50%; all the coasts of China and Japan appear and, in front, at a distance little greater than that of the previous map, a line of lands extended to about 10° towards the south of the Equator, which clearly and undoubtedly reproduces the lands American coasts of the Pacific, that is, the northern coasts of Peru. A large island to the north represents Vancouver.

of old ideas, common then. What was then known about South America is in the

west end, but its rear part, or Pacific coast, appears at the east end. The Sinus Magnus is enlarged in the same way as in the first map of Reinel (of whom he was a disciple) and, at the same time, the influence of Ptolemaic ideas is noticeable, along with those of Marinus.

It is evident that it was Reinel who, for the first time, expanded the Sinus Magnus, thanks to the Javanese map. The Lopo Homen maps are from 1519.

EL MAPA DE HENRICUS MARTELLUS GERMANUS EXTRAHIDO DO ILLUSTRAIUM GERMANIS MS XV
elliptical) from 1489. The map is three years prior to the discovery of America by Columbus. TO
from China, where the town of Cattigara is indicated; this peninsula reproduces exactly
with respect to its Western zone, and those of Toscanelli in his interpretation of Marco Polo to the Es
similarity with South America. Then there was the idea that there could be no other continent
Thus, note that Greenland has been united in the same way to Northern Norway. Photo,
Board.

We repeat: no one can doubt that this land is America, despite being located in the Pacific less than half of its corresponding distance, and the serious matter is that no European had reached it in 1517. Therefore, There can be no doubt that they were copied from the Javanese map.

Passamos al mapamundi de otro portuguese cartographer, Lopo Homen, que continee, ajun-tos, dos locale maps sobre el Sinus Magnus. The world map represents the Earth in a circular shape, rather than spherical, as a continuation

We interrupt the relationship on this map, to discuss another quite earlier and no less important one, which we reproduce, the now famous one by the Turkish Piri Reis, nephew of the Turkish admiral Kemal Reis, who composed a world map in 1513 and gave it to the Sultan Selim in 1517. Unfortunately, of that world map we only have the western third left, with America and the end of Africa and Europe. It is one of the few oriental letters of the time that we know directly. In the abundant text it contains, it is indicated that the author used, as a source,

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World map by P. Apianus 1520. The coasts of North America are being completed although they still have a long way to go; South America is complete although at a very sharp point downwards. The far east preserves Southern India with Cattigara, which only appears on the later maps of Magellan's voyage. Photo and Mapoteca authorization of the Ministry of Foreign Affairs. Rio de Janeiro.

BRAZIL.

tes, numerous ancient maps and, especially for America, reports coming directly from Columbus through a slave

atigara

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Christian that he owned, and that he had been a sailor for Columbus on most of his voyages. According to what corresponds to the date, South America is very well represented, while what until now on that map has been assumed to be North America, are the Asian coasts, conceived exactly as Columbus did, something that can be seen well by comparing what is supposed to be the island of Cuba, and which is Cipango, due to its shape, on Behaim's map,

THE EXTRAORDINARY COMPARISON MADE BY PABLO J. GALLEZ, on rivers and mountains of the great world map of Martellus=Hammer of 1489, in comparison with the reality presented by the mi
Unfortunately the same Martellus on another map only later in a few months, presented us
mountains, which can no longer be compared with reality. Martellus was evidently a ge
previous without much critical spirit, but the coincidences presented here are such that
In that great peninsula a series of geographical facts were incorporated corresponding

news given by unknown sailors.

Reinel's maps and the second of Lopo Homen's detailed
maps. Cipango or Japan, both Portuguese call Parioco.

On the Piri Reis map, to the south, after present-day Brazil,
south of Rio de Janeiro, the land extends in a great turn
eastwards to southern Africa, forming a large bay. Both R.
Levillier and VC Sierra

(respectively, Vol. II, page 42, and Sierra, page 189, note), they make
us note that, in the latter, the Piri Reis map is very similar to that of Lopo
Homen, without drawing any consequences. cia of it.

We leave aside the absurd interpretations that have
been made about the Piri map
Reis, assuming that the last land mentioned

THE EXTRAORDINARY COMPARISON MADE BY PABLO J. GALLEZ, about the rivers and mountains of the g
Martellus=Hammer's world map of 1489, compared to the reality presented by my
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previous without much critical spirit, but the coincidences presented here are such that
In that great peninsula a series of geographical facts were incorporated corresponding

news given by unknown sailors.

MASCARA BARBADA EN UNA ESCULTURA DE CERAMICA DE VERACRUZ. According to FJ Dockstader: Art in

It would represent the god Xiuhtecuhtli of Veracruz, 300-900 BC Height 41.9 cms. What most in

raised on the head that it presents, and which has a face of European type provided with u

Nothing represents Antarctica and that the representation of America is supposed to correspond to what our continent was like about 10,000 years ago. It is an uninterrupted series not of fantasies, but of nonsense.

We would be very interested in having the rest of the ma-Pa of Piri Reis to see how he conceived the lands of the Far East, something that seems to have caught no one's attention, but we believe we can know it, since in 1519 Lopo Homen copied the same eastern maps that Piri Reis used, especially the Javanese, which must have been but one of the types of maps spread throughout the East.

We return to the maps of Lopo Homen. On the world map, the Sinus Magnus is enlarged exactly the same as in the first map of Reinel, of whom we said he was a disciple; This is better seen, in his detailed map, with the north of the Sinus Magnus, which leads to Ptolemy's Fifth Climate, while he has reduced it to his First Climate.

Here we will clarify that Lopo Homen's world map has been so poorly understood that, without exception, all the authors we have consulted condemn it with the worst words (“an ignominy”, says Levillier about it), considering it a clumsy survival. of Ptolemaic ideas that no longer corresponded to their time. But, in reality, it is a sum of knowledge as we are going to see.

The two detailed maps of the Sinus Magnus by Lopo Homen correspond to those of
Marino de Tire y Reinel of 1516, and it is evident that the author has tried to bring together in a single set the data of Ptolemy and those of the Javanese map that presents the American coasts of the

Pacific in a similar way to Ptolemy; In its southern part, three protruding points or capes appear, which correspond to the north of Peru, and whose size is more than double the real thing the same which occurs in Ptolemy. Then, something really impressive: south of this, a little further down the Peruvian coast, appear the small rivers of the Peruvian coast, and the last of them has the name of Maiu Flu, river whose appellation of Mayu corresponds to the name of river (Pilcomayu, Yanamayu, Ancasmayu, etc.). It is the first word of the Quichua language that we have securely in history, a dozen years before the Spaniards came into contact with the Inca Empire and their language. And that cannot come but from the Javanese map.

There are another twenty names, which should be studied in detail and attempted to be translated exactly; among them, towards the north of Mexico, a river Chriso (Golden River, in Greek) and, next to it, a city called Zacatabe, whose origin in some Nahua language seems as evident to us as the Mayu of the quichua. Also that name of Zacatabe must come from the Javanese map. Today it is Zacatula at the mouth of the Balsas River, Nahua name.

MAYAN CERAMIC SCULPTURE WITH BEARD AND MUSTACHE.

According to FJ Dockstader, Kunst in Amerika, volume II, lam. 70. From Guaymil: 900-1200 of the Era; height 38.8 cm. The whole of the art in which it is made shows to be an impoverishment of something more perfect in anatomy. The face is completely Caucasoid in type, as also demonstrated by his broad beard and mustache, in no way Mongolian.

The name of Brazil, so expressly indicated in the Albuquerque letter, is missing from all the maps we are citing, as is the continuation to the south of the Maiu River of the Pacific coasts of South America, and also any indication of Australia. We believe this is due to political reasons. Regarding the Pacific coasts of South America, the Strait of Magellan may have appeared there on the Javanese map, but that, naturally, had to hide it in the same way that Brazil was hidden.

The result of all this is clear: the Javanese map reproduces Marino of Tyre's true vision of the world, undoubtedly with extensions. We assume that the following occurred: in the colonies of Phoenician, Greek and Roman merchants in Indochina and Indonesia, from times shortly after Christ, where copies of the works of Marinus and Ptolemy undoubtedly arrived, this version could not be accepted. last and its reduction of the Sinus Magnus, since that did not correspond to the reality they knew. They stayed, then, with Marino's interpretation, preserved especially in Indonesia where there were more reasons to do so; The civilized peoples of that region preserved it, therefore, with undoubted additions, such as the Bering Strait, indicated on the second map of Reinel and on that of Magellan, which appears partially outlined in Lopo Homen, although without its exit. to the Pacific and before on an Arab map from the 1300s.

In Germany, with Waldseemúller, etc., the idea that the New World was a Fourth Continent was widely developed (a theory already outlined in The Thing, Cantino, Ruyseh, etc.), entirely separate from the Old World. Wald-seemúller gave it the name America, in homage to Amerigo Vespucci. There are several maps published in accordance with this idea, already before; but what no one has noticed is that in them the Old World appears reproduced exactly with the shapes of Ptolemy's map along with Toscanelli's great error, that is, placing Marco Polo's China, Indonesia, etc., behind the large peninsula where Cattigara is. South America is isolated in the Western Hemisphere, and North America appears as a much larger island.

small, shortly behind which is Cipan-go (thus, Waldseemtiller in 1507, etc.) Australia or any Southern Land does not appear on these maps.

We are now interested in two maps by the German author Schóner, the first from 1515 and the second, which differs very little, from 1520. There appears a great Southern Land, which is a distant continuation of Ptolemy's Tierra Incognita, and which, consequently, had to appear on the map of Marino and the Javanese. It is separated from South America through a small strait, and on the map of 1515 it bears the name of Brasilie Regio; while, in 1520, it was called Brasilia Inferior, and the name of Brasilia has been transferred to South America. It seems evident to us that the name of Brasilia and the aforementioned strait came from the Javanese map, and that Southern Land is the one that appears before on the map of Piri Reis and then on Lopo Homen, where we have already said that it is located. outlined the birth of the same strait.

MOCHICA VESSEL WITH EUROPEAN FACE AND BROAD MUSTACHES.

Just as in a Guatemalan mask that we reproduce nearby, this Moche sculpture shows us a character with a completely white face, without any Mongolian detail, and equipped with large mustaches, even curled at the end, something that no type of the small mustaches of the Mongolian type, with thick and hard hair, can make.

MUSTACHES AND RAM HORNS ON A MAYA WOODEN SCULPTURE.

It is an almost unique piece, because in the humid climate where the Mayan civilization developed, wood has rarely been preserved. It comes from Tenosique, Tabasco, Mexico, and belongs to the so-called Old Empire, between 200 and 800 AD.

His large twisted upward mustache is completely of the European type and the horns rolled forward that he presents are the typical ram's horns, a symbol of the Law, with which Moses and Alexander the Great have generally been adorned. It also boasts dried apricots, a symbol of American nobility. High, about 33 cm. THE METROPOLITAN MUSEUM OF ART, THE MICHAEL C. ROCKEFELLER MEMORIAL COLLECTION

OF PRIMITIVE ART.

There are numerous interpretations to explain the presence of that strait in lands that had not yet been discovered by the

European explorers. Few have cared, however, about the representation of that Southern Land. Clandestine voyages were invented, some of which are evident, such as that of the so-called Newen Zeitung, of 1514, which is supposed to have reached the Río de la Plata, which would have been mistaken for a strait, and that would be what Schóner reproduces. ; but we believe that it is impossible to confuse a river with muddy waters with a strait. The truth is that this strait is about 10% lower than its latitude would be, and that it corresponds to the initiation that Lopo Homen made of it on his world map.

PJ Gallez has demonstrated, in a good monograph, that this expedition even passed the Strait of Magellan.

After what was mentioned above, we are going to talk about Magellan, and his return to the world. It seems evident that Magellan had a world map where this strait appeared and, precisely, he was looking for it at the aforementioned latitude, at about 43°. There has been much discussion about which world map that was, but that no longer interests us. The truth is that Magellan was present at the conquest of Malacca and undoubtedly saw the Javanese map. Magellan had a great friend, called Francisco Serrano (Serrao), whose life he saved in the battle of Malacca in 1511; Later that friend traveled to the Moluccas and liked the oriental life; He stayed there and married the daughter of the local monarch, becoming Grand Vizier. He died in 1521 poisoned, it is said that by the Portuguese who had already established themselves.

BEARD AND HORNS ON AN OLMEC FIGURINE, from Cerro de Las Mesas, Veracruz, after Philip Drucker, Ceramic Stratigraphy, etc. Human head with feline features, provided with an abundant beard and, at the same time, with horns rolled up at the top, similar to ram's horns, which did not exist in America.

there and they distrusted him. But he maintained his friendship with Magellan and corresponded with him. Some of those letters and a response from Magellan are preserved. Magellan had also become friends with an Italian adventurer, called Varthema, which had become maho-methane and had traveled throughout southern Asia to the Moluccas. Then, at the court of the king of Spain: "...it is seen that his news, thanks to his relations with Varthema and his friendship with Serrao, is more credible than that of all the archives of Spain..." (Zweig, S., p. 56).

Here it is very clear that the reports with which Magellan conceived of going around the world came mainly from the eastern maps, from Varthema, from the Javanese map and from the reports of his friend Serrao, which gave him an idea about the shape of the surrounding world. that Indonesian sailors knew. From what has been said above we can imagine: the strait must have appeared on the Javanese chart and it would not be impossible for it to also exist on Marino's original map, being something like a counterpart to the Strait of Gibraltar.

Magellan believed that the Moluccas belonged to Spain and not to Portugal, according to the

delimitation of the Treaty of Tordesillas; He also, manifestly, knew that the great peninsula of the East (Toscanelli's error), with Cattigara, etc., did not exist, or rather, that it was South America, and that the extension had to be expanded. of the Sinus Magnus, but he also believed (the same as Columbus) that the earth was a quarter smaller than it is, in agreement with Marino and the undoubted news they had from Indonesia, etc., so he assumed that the Pacific was much smaller than it is in reality, which made him suppose that between the Strait he was looking for and the Moluccas, where his friend Serrao was, there were about 600 leagues or 36° degrees of distance, when in reality he found himself with a length of about 150".

Another quote, about Magellan:

“He made a speech that since Maluco was six hundred leagues from Malacca to the west, which is roughly thirty-six degrees, it lay outside the Portuguese limit, according to the ancient charts. Returning to Portugal, they did not give him any mercy; rather, he judged himself to be aggrieved, and feeling disfavored, he went to Castile bringing a map drawn by Pedro Reinel. By which, and by conferences, which he had through letters with Serrao, he persuaded the Emperor Charles V that the Moluccas were his right” (Bartolomé Leonardo de Argentoza: Conquest of the Moluccas Islands. Barcelona, 1609 (in: Sierra, VD: note 72, page 254).

Things become much clearer, especially by the citation of Reinel's map, which he copied from the Javanese map, whose distances coincide with those of Marino, and in which Magellan believed.

He would hardly have dared to plan his trip if he had known the real distances. What matters is that it traveled around the world, completed by Elcano, and the results of its trip ended up modifying European maps. The great peninsula of Catti-gara disappeared in them (although it still lasted half a century), the product of the errors of Toscanelli and Ptolemy. This was done at the beginning in a way that was as complete as it was erroneous, as we see in the maps of Monachus and Oroncio Phineus, from 1526 and 1531, which we reproduce, and where North America continues to be identified with Asia, to the point of placing Cathay (China) in Mexico. In other words, the South Pacific had been discovered, as an extension of the Sinus Magnus, but the North Pacific had not yet appeared.

A few years passed and a political problem arose that was efficiently resolved in

Mercator's famous world map, from 1569, which we reproduce. North America is completely separated from Asia by a Strait (Bering), which occupies the same place indicated

Reinel in 1517. The political problem consisted of denying the English, French, etc., the right to discover and colonize American lands, on the basis that the discoverers (Spain and Portugal) were the only ones who possessed it. Hence the complete separation of America and Asia through the recognition of the existence of the Bering Strait, which had not yet been discovered; but the problem of Cattigara remained; If navigators from Roman times had reached there, they were known lands and the right of discovery did not exist.

It was then necessary to get rid of Cattigara, and that's what Mercator did: he placed it on the coasts of Siberia.

ria of the Sea of Okhotsk, north of Cathay, supposing that Ptolemy had made a mistake and had placed the Asian lands heading north to the south. We have already said that such an error is impossible, but there is an important detail in that transfer that Mercator made: he respected the distance between Zabai and Cattigara according to Marino. Current authors ignore it, and place it on the Chinese coast, in Vietnam and even in Singapore and Sumatra.

It should be noted that when the Spanish-Portuguese dispute over the Moluccas began in 1512, Spain tried to send Juan Días de

Solis through the Cape to the Moluccas, to delimit the jurisdictions there; Portugal objected and that trip was not made, but among the instructions that were given to Solís, it is said:

“Item that you have arrived at the island of Ceylon, please Our Lord, you may go to the island of Maluque, which falls within the limits of our demarcation, and you will take it for the Royal Crown of these kingdoms, in accordance with the said memorial. ; and having done this, you will go forward to Sumatra and Pegú, and to the land of the Chinese, and you will go to the land of the Jungos, if you can, and you will take possession of them for the Royal Crown of Castile of everything that you will find in our part, as is said, and you will travel as far as you can within it, without any inconvenience to your trip” (Levillier, R.: America the Well-Called, vol. I1, page 63).

The emphasis is ours. It seems like a lot of pretension to us to take possession of China, etc., so easily, but what matters is the "land of the Jungos". What land was that? We don't know, but the Spanish spies in the court

The Portuguese had no doubt already obtained copies of the Javanese map. That name is too similar to Yungas, that is, the name of the warm valleys of the northern Peruvian coast. It may be a coincidence but, remembering the name of the Maiu River in Lopo Homen, copied from the Javanese map, we do not believe much in coincidences.

He continues, expanding his intuition about our quote regarding his work Primitive Basque Navigators.

The second is Pablo J. Gallez, director of the Patagonian Institute of Bahía Blanca, who knew Gandía's work before ours, and whose latest works interest us.

European-type face with magnificent mustache, in pre-Columbian Guatemala. Terracotta mask Seler, Alterthúmer aus der Guatemala, reproduced by Henri Benchat in his Manuel d'Archeol presents this mask in no way can they be considered as mongoloid and even less po presents, at the same time that its complement, the beard, which had to exist together, is

racial armenoide.

des. As for the name of Ceylon, in the second line, it is evidently Borneo.

5.—Latest discoveries about the Great South Asian Peninsula and its relationship with South America.

Among the various resonances that our first work has had, announcing our discovery of the representation of America on Roman maps from the time of Christ, two Argentine authors who have developed our research in some points are worth highlighting. The first of them is Enrique de Gandía, who has published several works in which we

discoveries, which seem extraordinary, since they would even expand much of what we have said before.

Both authors postulate the existence of a previous world map, missing, that the Infante Don Pedro of Portugal would have obtained in Italy, drawn in 1428; The entire surface of the Earth would appear there, including the Strait of Magellan, which would receive the name The Tail of the Dragon. This world map is cited in a posthumous work by Father Antonio Galván (died in 1557), published in 1563; he himself had been governor and apostle in the Moluccas.

According to our authors, the great

South Asian peninsula, which we attribute to an error by Toscanelli. We can say nothing about it due to the disappearance of that map and as long as that peninsula does not appear on any map prior to Toscanelli.

What does interest us is the latest work by PJ Gallez, entitled Les Grands Fleuves d'Amérique du Sud sur le Ptolomée Londonien d'Henri Hammar (1489). The author deals with the world map of Hericus Martellus Germanus (that is, Henri Hammer), of which there are actually several, but of which we have cited the oldest of them, the one from 1489. That is the oldest map that we know of where it appears. at its maximum extent that peninsula (it exists on Toscanelli's map of 1457, but in a smaller size).

Gallez has compared, in the aforementioned work, the great rivers, mountains, the general direction of the coasts and their capes, which appear in the world map from 1489 with the same data existing in South America, and the result is a series of surprising concordances that can hardly be attributed to chance, which is why we reproduce the two maps of their comparison.

Had the Atlantic coasts of South America already been explored, and even its great rivers navigated, before this map was made? We cannot affirm it, but the coincidences are excessive. Unfortunately, this is the only map of Martellus where the rivers and mountains appear like this; A few months later he made another one, and in it he changed mountains and rivers, so that they no longer coincide, and the same goes for all the subsequent maps that copied it. Furthermore, on the same world map of 1489, there are a series of names from the work of Marco Polo, of India and Indo-China, on that great peninsula.

CHAPTER IV

Merchants in Cattigara and its great gold metallurgy. Latest transpacific migrations. A Hellenistic scientific mission in America?

1.—Merchants, jugs and ships.

For more details on boats, we refer to our works dealing with primitive navigation. Here we will deal only with the possibility of transpacific navigation with the ships that existed in times of the Christian Era.

The ships we are referring to are fundamentally the merchants' own ships, that is, cargo ships and not war ships (the latter were used only for short voyages), which corresponds to the difference -reference existing then (and now) between round boats (for cargo, merchants), and long ones (for war), generally with more than one row of oars and ram. In round ships the carrying capacity was counted by the number of jugs or amphorae, made of ceramic, that they could carry, and whose average capacity we do not know, but we can calculate at about fifty kilos, including the weight of the jug. Today we count the capacity of ships in tons, a word derived from a barrel, made of wood, and of which, in later times, two were normally counted to make a ton.

In Roman times there were large transport ships, much larger than we imagine; In times of the Christian Era there were some capable of carrying up to ten thousand jugs and they were called myrianphoras (10,000 amphoras, 500 tons today, counting 50 kilos per jug), but there were much larger ones, for cargo and passengers, such as They had to be the ones who transported the Egyptian obelisks that weigh more than 500 tons to Rome. Cargo and 600 passenger ships are mentioned. The ship that took Saint Paul to Rome carried 276 people. There are also references to ships

A

cargo of more than 2,000 tons, but common vessels must have averaged about 200-300 tons of cargo. Some had their hulls covered with lead plates, to protect them from teredos (mollusks that pierce wood), a system that was supposed to have been invented 1,500 years after the Era.

Referring to the same period, Berthelot (p. 360) informs us that in Ceylon and in the Bay of Bengal there were vessels capable of carrying 3,000 jugs, according to Ptolemy, that is, about 150 tons.

We reproduce some illustrations of sunken ships in those times and shortly after, in the Mediterranean, where they appear with their jugs, naturally well preserved.

We tend to imagine ancient ships, from what we learn as children, about the size of the ships that Columbus used in his discovery, although, in reality, Columbus used smaller ships, since at that time 1,500-ton cargo ships were already used, which They made the trip from Genoa to Flanders carrying goods; but, naturally, ships of that tonnage were not going to be used in an attempt at discovery.

Even in the Indian Ocean, about two centuries before Columbus, large capacity vessels were used, as we see in a quote in which we abbreviate details:

“Abu Abdallah Mohammed, Ibn Abdallah, Idn Mohammed, Ibn Ibraim, known for about seven hundred years under the name of Ibn Batuta and as the most infamous

PITCH OF CURRENT TRADERS. Partial view of a current boat on the Mekong River, Thailand and Laos. There are a hundred jugs in sight, and the boat must carry
that are tied by scores, which prevents them from rolling, the same thing must have happened in the ba
a true survival of the boats of the ancient merchants who arrived
cargo, and, precisely at an intermediate point between the Ancient Mediterranean and Latin America

for all.

gable globetrotter of all times, recounted what had happened to him in 1330 in the port of Calicut, India, when embarking on a ship serving China, writing, many years later, commissioned by the sultan of Morocco, Ibu Iman, your travel memories.”

“The great Chinese merchants have taken the cabins for the round trip.

return," the Arab purser Suleiman, from Safad, near Akka, in Palestine, had explained to him. But my brother-in-law has a

compartment that can be transferred to Your Excellency. Too bad there's no bathroom! Perhaps in the course of the voyage we can get one of the Chinese to change with Your Excellency."

"I want a cabin to myself, because of the slaves; I have the habit of traveling only with them... There are cabins with a bathroom and dressing table.

"They have a key…"

"First class, toilet, bathroom, rooms, return tickets: no, we didn't hear it wrong. That is indeed how it is. "So it is on the enormous junks that serve between China and India…"

"We are very well informed on this point, since the news is abundant. There is the Chinese Buddhist Fa-Hien who, in 414 AD, sailed from Java to Canton, crossing the South China Sea, in a comfortably equipped merchant ship, with two hundred passengers on board, apart from the cargo; in 414, that is, a thousand years before Ibn Batuta...".

(Herrmann. Paúl: History of geographical discoveries, vol. 1, pp. 361-362).

These Chinese ships, according to Hermann, had twelve hundred people on board, had a capacity of 2,000 to 3,000 tons, and carried up to twelve masts. In volume 2 of his Work, the same author reports that these ships passed through the Sunda Strait (between

Sumatra and Java) and then through the Philippines, it is .

that is, east of Borneo (opposite Zabai):

He took this route because the Strait of Malacca is only usable two months a year for sailing vessels.

We reproduce a current illustration, a photograph of a merchant boat on the Mekong River, between Thailand and Laos, where more than a hundred jugs appear, but

LARGE BOAT REPRESENTED IN A MODERN VESSEL

GIRL WITH HANDLE-STRIPUP. It corresponds to a relatively late period of the Moche culture, possibly around the first millennium AD. The boat is represented as if it were a large reed raft, but the presence of a large bridge on it forces us to discard that and it was undoubtedly a merchant ship made of planks; The series of jugs under the bridge shows well that it was a merchant ship, but possibly they no longer arrived in the region at that time, and the artist, by copying older figures, adapted them to the vessels known locally at that time. Thor Heyerdahl was inspired by similar illustrations for his rafts called Ra, with which he crossed the Atlantic, but he forgot the existence of the bridge and the jugs, whose mere presence refutes his interpretations.

As the boat takes longer, it must carry no less than five hundred. We have seen others

illustrations from Borneo, although with far fewer jugs.

We are going to stop at some somewhat confusing and unconnected reports from Marco Polo, of great importance, as they show us that in his time navigation with the American coasts continued. Marco Polo's data are not

China, they say Mangi; but China is towards the Levant, and has, according to the pilots and navigators who know it, 7,448 islands...

clear; at some point it seems to refer to Japan (which it calls Cipango) and in others, to undetermined islands of Indonesia:

“But I will tell you, because I wish you not to ignore it; When one of the idolaters of these islands kidnaps a man who is not a friend of theirs, and he cannot be ransomed for money, he invites his friends and fellow men to his house and eats him, in the company of his relatives; But first they have it prepared and cooked properly and they find that it is the best meat they can get. And we return to our story: this sea in which the island is located is called the China Sea, that is, the sea that surrounds Mangi, since the natives of this island, when they want to say

Gold abounds so much in them, that it is marvelous, but it is so far away and so much effort is required to go to them, that there are not many who get there. And when the ships of Zaiton or Guinsai dock there it is always with great benefit and profit. But it takes them a year to get to them, since they go in winter and return in summer, because the winds are favorable at that time, and when they return in this season, one blows astern in winter and another in summer. This region is very far from the path of India, and I told you that it is called the China Sea” (Marco Polo, pp. 155-156).

Drawing depicted on a Mochica pottery from the Chicama Valley, probably dated p of double boats, according to what appears in the double stern they present; a bridge which is characteristic of the warships of the Ancient Mediterranean and is inventive The thing is that under that bridge a series of jugs appear, like those on the boats before. The drawing is made according to local art, with mythological additions, and as if This is not an original drawing, from someone who saw boats, but the work of a Hermann Light.

DRAWING FROM A VESSEL FROM THE MOCHICA CULTURE, northern coast of Peru, from the early period the age. Published by Hermann Leicht, with the comment that it is a representation of a vessel from the Chimú culture, much later than the Mochicas. As in the previous case, it was Try the representation of jugs that appear under the bridge. Furthermore, the drawing of boats has been humanized by placing feet on them; It seems evident that it is not about u previous motifs, adapted to the symbolic style of the region.

FINDING IN MEXICO OF THE OLDEST COMPASS IN THE WORLD

The invention of the compass or compass is still highly debated regarding place and antiquity. It is generally attributed to the Chinese of the first millennium CE.

For us it is very ancient and would have been used by the Phoenicians and the Greeks, it is even possible that the earlier Egyptians, naturally in the primitive form of a piece of lodestone floating in water or oil, placed on a cork or wood. Its main use was to find its way when there was fog; Even Homer talks about it when he tells us that the ships of the Phaeacians could navigate in the fog "by a virtue of the ship itself." Naturally, such an instrument has a possible error of several degrees, but it is enough to guide when, due to fog, etc., the Sun and stars cannot be seen.

A latest discovery puts us in front of the oldest known instrument of this kind, and the extraordinary thing is that it corresponds to the Olmec civilization of Mexico in its oldest phase, around 1,200 BC. C. The news is found in the publication The Interamerican, of the Inter-American Institute of Texas, vol. 22, No. 6, Nov-Dec. from 1975, Translation by Salvador Costa Parga:

"DID THE OLMECA INVENTED THE COMPAS? A multidisciplinary analysis, conducted by Juan B. Carlson, on a hematite artifact found in San Lorenzo, Veracruz, Mexico, indicates that the Olmecs may have discovered and used the com-pas lodestone®del Trad. in Scandinavian, from the 11th century, leidsteinn: "geomagnetic guiding stone", before 1,000 BC. This predated the Chinese use of the compass by more than a millennium. The artifact was found in situ by Paula H.

Krótser, during a season of Yale digs. It is a small, rec-tangular, hematite bar, of trapezoidal (cut) section, and with semi-cylindrical groove running the entire length of the object. It was placed on cork stand by Miguel M.

Coe, and was constantly oriented with little deviation towards the West, from magnetic north. For further details see Science, vol. V, no. 4,205. (Thanks to Newslet-ter, Institute of Maya Studies, 3.280 S. Miami Av., Miami, FL 33.129, Hal C. Ball, Editor.)"

Several times we had made similar compasses, shown to our students in Rosario. Comments are unnecessary, although we will present the known facts on another occasion. With what has been presented, the fundamental objection against transpacific relations—that is, the impossibility of this navigation without a fixed course—is completely overcome.

We find several reports that can refer directly to America: the first is that of the food, which we will call "paschal", of the captured enemy, which can only occur in Mexico. This may perhaps be discussed, but the obvious thing is that it cannot refer to Japan. Other news are those one-year trips

duration in search of gold, which is too much for a trip to Indonesia, and also "this region is very far from the path of India." It is also said that it is a direct trip without intermediate stops, with wind in the stern both on the way out and on the way back; We could assume a duration of about five months, counting two months for trade at the place of arrival, and the remaining months occupied in the round trip. In Indonesia, in various places, there is gold, but not in that abundance that is praised and that would justify those year-long trips. These trips had to reach western Mexico or Cattigara, Marco Polo

He had disjointed data from the navigators, referring to distant Eastern Lands, and he summarized them as best he could, placing the first cited facts in Zipango (Japan), which was impossible, and the second in vague islands at the end of Indonesia. in an area "very far from the Indian road", which would mean an opposite direction.

We assume that in the accounts of trips to the Far East made at that time, such as that of Nicola Conti and in Arab stories, there may be other similar information that, gathered together, can serve to clarify the fact, evident to us, that At that time, trans-Pacific voyages to America continued, made by a few adventurous merchants in search of gold and valuable raw materials. In Marco Polo himself, a few pages later, we find some references, which certainly frighten him, of

some embalmed pygmies about a cubit high, which he tries to explain by saying that they are monkeys stripped to the point of making them look like men; but in their very description, it can be seen that they are reduced entire human bodies, like those that have sometimes been

made the jibaros (the head reducers of the

Ecuador), which reduced entire bodies to a size of about 45 cm.
Without a doubt this practice was previously more widespread
on the American coasts, and is described even for Mesoamerica.
Naturally, that would be a product

Plate from the Borgía Codex, according to Seler. Various mythological scenes among which stands out pot, whose supposed spiritual meaning is the purification of man. In the last illumination Below her the same rabbit with big claws.

A CANTAR OF TRANSPACIFIC TRADERS FOUND IN LA VENTA?,

according to Druecker and Squier, Excavations at La Venta, Tabasco, and corresponding to the ancient Olmec civilization. The general shape of the jug and its narrow neck, with a rim to tie a leather lid, does not correspond to any form of Native American jugs that we know, and furthermore: the circular lines that it presents throughout its contour show that it was made with lathe, something that did not exist in pre-Columbian America. It is evident that this is a jar left by the transpacific traders. It is a non-American piece, found at cultural levels prior to our era.

AN AEGEAN-PHOENICIIAN SHIP AND QUADRANT FROM 1400 BC

Reproduction of the latest illustration, added to the already printed work The Representation of America on Roman Maps from the Time of Christ, by the author, showing the indicated discovery, made in 1970 in Lima. The illustration is reproduced with the text then placed, to show the process of discovery. We now prefer to call the nautical instrument a quadrant and not a sextant, because it has 90% degrees of opening.

Also that it is probable that the antiquity of the ruins of Serro Sechin is even greater than indicated, perhaps until 1800 BC, and the same, given the size of the monoliths that exceed four meters in height, that it is probable that the interpretation made by Mr. Habich that there are two naves, with their ends broken, and not just one (which would be very long) seems possible.

that merchants would carry as merchandise of great value.

To see that in Arab stories there may be interesting
information about these

trips, just remember the stories of the Thousand and one nights; There two obvious trips to America are related, the first is the sixth trip of Sinbad the Sailor, who, evidently, reaches the coasts of Peru and then, by means of an underground river that leaves there, arrives (taking a year) to the island of Ceylon; The second is found in the Story of Queen Yamlika, Underground Princess, where a young king named Belukia obtains a juice with which, by rubbing the soles of his feet, he can walk on the sea. With this it crosses seven seas towards the east; The seventh of these seas was so long that he walked day and night for two months through it, feeding on raw fish (a custom in the Pacific), and, finally, he arrived at a land that is Paradise, and that is the Peruvian coast, as in the previous case. That the coast of the previous journey is also Paradise is demonstrated by the underground river to which it refers, since four underground rivers traditionally leave Paradise, which much later rise to the surface, and they are the Nile, the Euphrates, etc. .

Also for the author of the Thousand and One Nights, China and Sinai are two different countries, as for Ptolemy.

Naturally, both travel tales are, in origin, long before the compilation of

stories, possibly before Christ and of Persian origin.

We now go back, for a moment, to Ancient Mediterranean and we make another quote about it:

“Homer's ships had an open structure, they were devoid of bridges. The new era required something more efficient and protected. A second radically new feature was added, a combat platform, from which marine soldiers—archers and spearmen—could act.

They were in the shape of a bridge that covered most of the ship, but not all of it; HE extended on the center line from bow to stern; but not from gunwale to gunwale…" (Case, Lionel: The Ancient Mariners, page 88).

Regarding the appearance of that bridge, there is at least a clear representation in the final Minoan era; then it disappeared to reappear, as the author says, around the 9th century BC. c.

These same bridge boats arrived in abundance in Indonesia, in current use, and in Tahiti, where Captain Cook describes them.

We finally arrive at American lands.
It is always said that the American Indians were poor navigators, which hides the historical news of the Spanish conquerors; Thus, the encounter by Columbus himself of a merchant ship, with sail, that was going to Cuba, the same as the merchants' raft found by Captain Ruiz on the Ecuadorian coast, which was heading to Panama.

It is also hidden that there was active maritime trade in western Mexico, as well as in the Antilles and the coasts of Columbia.

It does not require more than a few lines and a few illustrations to prove what we are going to say. We know, from historical news that, centered on the Ecuadorian coast, there was an active maritime trade with the northern coast of Peru and with Panama, perhaps also with Acapulco, in Mexico, but from this, from its ships, We always talk only about the so-called "rafts" of the type he used.

Heyerdald to go from the Peruvian coast to near Tahiti, its famous Kon-Tiki. In this way, the presence of real vessels on the American Pacific coasts is always denied. The various illustrations that we present, both from Mesoamerica and the Andean coasts, sufficiently show the falsehood of this theory.

We will limit ourselves to dealing with a type of em-boats, enough for our objective. In numerous paintings made on Mochica vessels from the northern coast of Peru, large boats appear painted. These ceramics correspond, due to their style, to a few centuries after the Era. The drawings appear to represent boats whose general style is artistically treated as if they were large reed boats (jun-cos), which they undoubtedly were not, due to their details: they are high-board boats or ships, of large size and provided with a large central bridge, which runs the entire length of the boat, on which there are one or more people. The boats are “humanized,” that is, they have human “feet” on their bottom, which would show that they are copies (perhaps wall paintings) of previous local drawings, which may have already appeared. and we don't know.

The detail that matters most to us is that, under the bridge, on the side of the boat, a series of jugs repeatedly appears, as on the merchants' boats that we have discussed before.

The fact is so evident that we believe that no further proof or comment is required.

These are larger boats, equipped with a bridge, originally from Crete and ancient Greece (or are they earlier among the Phoenicians?), and containing hundreds of merchants' jugs. Although we only have later, impoverished copies, its details are so characteristic that there is no doubt. However, some authors, to avoid these obviously annoying representations, have claimed that they are mythological representations of the Moon, and that the jugs would contain the dew!

We also present several figures with other types of ancient American boats, both from Mesoamerica and the Andean coast, among which two stand out: a Mayan bone ring, where a large boat appears (similar to those of Mesopotamia

« ancient that appear in predynastic Egyptian engravings), which is best seen in the figure, and the sculptures of Serro Sechín, on the Peruvian coast, somewhat north of Lima, where an extraordinary boat appears (or are there two? It seems very long as we have reconstructed it), equipped with outriggers or side floats , as in current Indonesian vessels; Also, in another stone from the same ruins, there is a clear representation of a quadrant (not a sextant, since it has 90%) of altitude navigation.

The most important thing is the antiquity of these ruins: they are supposed to be no later than the year 1000 BC. C.; a C-14 date seems to have given them 1400 years BC. C., but the sculptures would be even older, since the building is made with stone from a previous construction, in which those bas-reliefs would appear. We believe that even the original building could date back to the time of Kotesh-Wayrajirka, i.e. 1800 BC.

Another extraordinary illustration that we present is also extraordinary, corresponding to a merchant pitcher, apparently made on a wheel, found in La Venta, Tabasco, an early Olmec civilization of the Era.

2.—Cattigara and the great metallurgy of gold in America, first appearance of foundry metallurgy and bronze.

The merchants who crossed the Pacific, in the times of the Era and long before, naturally, had as their objective the obtaining of rich exchange values, among which gold occupied the first place, and had to be

MAYA BONE RING WITH THE REPRESENTATION OF A GREAT ANCIENT BOAT. Bone ring found in the search of a Mayan cenote (water well), in Yucatán. The type of vessel that appears here in schematic form corresponds to the ships of Ancient Mesopotamia, which reached Egypt and India, etc. Its basic characteristic is its strongly raised equal ends, its oars and its central box. It is possible that this boat was double, like the Polynesian ones. With the appearance of this representation of a ship

of the high seas, the problem of how the first transpacific voyages could be carried out is solved, in principle.
Comparable vessels exist today in Indonesia, Micronesia, Melanesia and Polynesia.

abundant there to justify such long and dangerous journeys.

In the maps of Ptolemy and Lopo Homen, in the Eastern Lands, the only place where important geographical details appear on their coasts is the area or region where the city of Cattigara is located; In that area, a little to the north, a river appears that Ptolemy calls Ambastus and which originates in a mountain range towards the interior; Lopo Homen calls that river Bazica and puts a delta with three exit points; The only corresponding delta that exists on the American coast is that of the Guayas River. The word Ambastus seemed to be related to the name of the toad, in Qui-chua and Aymara: ampatu, commonly pronounced today hambato. Historically there was also a tribe called Bothtos there.

To the south of all this, both in Ptolomeo and in Lopo Homen, and better drawn in the latter, we find three projecting capes; On Ptolemy's map the city of Cattigara is located towards the end, followed by a river that he calls Cu-tiaris, while Lopo Homen calls it Parios, and places it past the last cape towards the south below that of Ptolemy. If we consider the position given by Ptolemy, it would be the Piura River, related, by name, to Parios (Parioco, in Reinel, 1516).

Furthermore, manifestly, the extension of this entire region is, proportionally, more than doubled in the maps of both authors, to the detriment of the immediate regions of Ecuador and even Mexico. Furthermore, as a whole, it has been placed partly above the Equator, when, in reality, it is below it.

For the same reason Ptolemy's measurements of latitude must be greatly reduced. We have prepared a comparative table of the details of the maps of Ptolemy, Lopo Homem and the current forms, where the relationship we establish is clearly seen. In fact, at first, we thought that, with regard to the first two capes, they were the existing points in Ecuador, which correspond even better than the Peruvian ones, but the position of the delta that appears on the map of Lopo Homem has made us take the second interpretation, although the Ecuadorian one is still possible.

Cattigara, according to Ptolomeo, would be passing the Piura River a little, despite the fact that it does not correspond to the 8° 30' indicated to us, although we have already said that its latitudes must be reduced. Another possibility would be that it was a little further south, in the current town of Lam-bayeque, whose importance we will see later.

Towards the interior of this area, Ptolemy tells us

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PROBABLE REPRESENTATION OF A LARGE BOAT IN THE ATACAMA DESERT. According to H. Osborn Mythology. p. 94. The author tells us that it is a double flame with its heads in the Deity of Agriculture. Comparing this figure with the paintings of the Moche vessels, p
boat with raised extremities, as occurs in several figures and sculptures me

There appear to be two large oar-rudders, but they may be legs added later, co

points out three cities: Coccoranagara, Thinae (which he calls Metropolis) and Sarata. The last name corresponds to Sorata, in Bolivia, Aymara name. It is also important, in Ptolemy, that he calls Sinarum Sinus what would be the present Bay of Sechura (or is it the Gulf of Guayaquil?).

Theoretically, Cattigara, for merchants to dare to cross the Pacific in search of it, had to be a region rich in gold, and that is precisely what happens on the Ecuadorian coast and, even more so, in Piura, which is where we consider that Cattigara was.

That is the region where, in all of pre-Columbian America, the metallurgy of gold and the jewelry manufactured with it was most intensely developed.

you give. Likewise, that is where the first foundry metallurgy appears in America, with copper and bronze, and in most cases, in copper instruments and weapons, it has bronze forms. Tin was undoubtedly in short supply.

Archaeologically, the region was unknown, except for the huaqueros, who exploited it clandestinely. Its scientific discoverer was the Uruguayan archaeologist Raúl Campá Soler, who gave the first news of its importance as an American metallurgical center, incomparably superior to that of the other regions of the continent.

He himself called that culture Vicús - Pabur; From the beginning he warned that

It was the oldest center where true foundry metallurgy existed in America. Its antiquity is not yet well established, but it is not less than 400 years before the Era. Also Campá Soler, a few years before, had discovered the importance of

Lambayeque as a metallurgical center, but

Lambayeque seems to be a few centuries later, and its metallurgy
has different characters.

Since Campá Soler is the discoverer of that culture and its
main scholar, we believe that it is best to let him speak and make an
extensive series of citations to two of his unpublished works, which

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A TYPICAL AEGEAN BOAT IN RECENT INDONESIA. Canoe of the Talaud Islands, North
outrigger, ram and stern raised at the same time as with a low and wide sail. The relationship is clear
history, but there is also an Early Minoan Cretan seal that reproduces a ship

PTOLOMEUS WOLF CURRENT MAN

Pt. Parina
Notice

Promontorium Pta. de Shirt

Satyrs Pta. Needle Point

of China

Lambayeque 8-7 No

e Thine

O Sarata Chan - chan\ 0

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DETAIL COMPARISON OF THE AMERICAN COAST REPRESENTED ON THE MAPS OF PTOLOMEO AND LOPO H
North of Peru and South of Ecuador. The copy that has come down to us from Ptolemy presents this cos
Homen on his copy of the Javanese map. You can see the three protruding points of the coast, which
current. Ptolemy's Ambastus River, which rises in a mountain range, has a large delta in L.
which is the only one that exists on those Pacific coasts. The Saenus River, which in Ptolemy Catiaris, is better
explained in L. Homen as two different rivers (possibly the Tumbes and e
confusing with them in the copies. The rivers south of Piura are well represented in the Quichua language.

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COMPARISON MADE BY HEINE-GELDERN BETWEEN THE RAFTS OF NORTH ANNAM AND ECUADOR, in Die A:
bamboo raft with sail and guaras, from the prov. Thanh-hoa, North Annam; B: raft of p
Ecuadorian. The guaras look good in the second: they are boards that act as a keel and t
boat, and that even allow sailing against the wind. There is also this kind of
even in Northern Melanesia, where they are made up of five canoes joined together in a single

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GOLD VESSELS FROM LAMBAYEQUE. According to M. Mujica Gallo, Gold Museum of Peru, pieces number 4.6
They correspond to the classic Lambayeque culture, and have been widely imitated in ceramics. I followed her
In the description that remains of the Quinto paid to the King of Spain for the ransom of Atahuallp
peaks, so they must have originated from Lambayeque. The shape of the ring foot is chypri

has been kind enough to facilitate us. Before starting, it is also
important to point out the fact that the oldest Mochicha
style ceramics have been found in the region, of incomplete

incomparable beauty, and its first antiquity is contemporary with the oldest objects of the Vicús-Pabúr culture. On the other hand, the ceramics of the Vicuses, although abundant in shapes, are, in comparison, relatively poor, much simpler, especially in their decoration, and less perfect firing; It is very similar to that of western Mexico.

The first reported work by Professor Campá Soler is titled: Vicús - Pabur and its surroundings, centers of an early Pre-Columbian Bronze Age. His first words are:

"In 1962, traveling along the dry bed of the Piura river, in the Morropón area, more precisely in the Pabur Hacienda in the Department of Piura in Peru, we located, from below, a hill that, due to all its characteristics, was of formation artificial, everything indicated a large garbage dump of those that archaeologists dream of finding. At first glance it looks more than 100 m. along the course of the river, and everything seemed to indicate that the whims of the torrents, when they descended in their course, had wreaked serious havoc on the enormous "little hill."

".. We walked the length of the "little hill" and went up to observe its perimeter; From above we saw some work carried out by tomb hunters - huaqueros -.

We walked a little and arrived at the town of Vicús... The locals of the town had, for the most part, ceramics and metal pieces in their homes from the work they occasionally carried out. In those moments we understood that we were facing a new style, a culture completely unknown in the archaeological panorama of pre-Columbian Peru.

"The metal pieces were abundant: among them the utilitarian ones reminded us somewhat of the hundreds that we had studied at the Brúning Museum in Lambayeque, but the general corpus, the decorative style of the weapons and ornaments, was completely detached from the Lambayecan style. The eye axes, of considerable effectiveness, had their spines decorated with heads of happy people.

us and human beings. We had never recorded them in metal for America, except for those in stone from Central America.

“We investigated that in a series of places, not far from each other, on the Piura River and the Yapateras River, there were a number of “mounds”, somewhat smaller, but all of them with metal and ceramic objects... These groups of deposits, which we located dispersed in an area of about 45 km. had an importance on par with what until the moment of that discovery was considered the largest pre-Columbian archaeological center in all

of ii

PUZZLE OF ANCIENT PERSIA IN BRONZE. They come from Luristan and are of indetermine date.
or a little less. Forms 2 and 3 have been widely copied in stone, we do not know if there
widely to Melanesia, where they are made of stone, and to the Andean zone, where the shape 3 e
in copper, both forms, in the Vicús civilization of the North coast of Peru, shortly after they spread throughout the Andean zone to Costa Rica and Western Mexico, imitated in pi
the Andes until the Inca era. From: La Civilta, vol. |. Ed. Vallardi. Milan, 1963.

America, that is, the necropolis groups of Batán Grande, in Lambayeque, Peru.

“*... The huaqueros, in the deepest wells of the excavations, in front of the typical pieces of Vicús and which evidently represented the oldest of the style, made Mochica I ceramics and metal pieces appear, pectorals and nose rings in relief in the purest and most archaic Mochi style.

that.

. We learned that in Chiclayo there were two collectors who had outstanding pieces within the Vicús-Pabur and Mochica I style; They were Messrs. Boris de la Piedra and Harald Zoeger, ... both were placed at our entire disposal and from the study of them, plus what we had already seen, we were able to structure our first work on Vicús - Pabur , classifying a new style, completely lacking in antecedents in plastic ceramics and in regards to metallurgy, something that really proposed another Bronze Age in pre-Columbian America, long before Tiahuanaco and Lambayeque, with a diversity and prodigious production of objects that was truly unusual for American archeology...

“As time passed, so many and so varied specimens of Mochica I and II were exhumed from Vicús that H. Larco Hoyle himself came to understand that the origin of the Mochica culture could well have taken place in the area of Vicús.

“...we found out that other local collectors from Chiclayo had pieces of that style, and thus we were able to quickly expand our knowledge. The ceramic pieces, identified as being from a basic level of the Vicús-Pabur culture, were immediately classified as from

a late formative period (Campá Soler, 1963), and the links of styles that are still in force today were made. The ceramics were classified and located on the indicated date, but not the metal objects since, as far as they were concerned, our surprise increased; On the one hand, they were very evolved in their forms, and many of them were made of bronze, a process linked to the wide range that was presented to our studio, only in the years 1965 and 1966, and -

We began to publish works on certain experiences about that complex conglomerate that formed the metallurgy of the rich and complex Vicús-Pabur.

"In most of the metal pieces, outside of the classic Vicús, such as, for example, the eye axes and the bearded harpoons, etc., not only is a Mochica influence observed, but they are not They are something other than those that appear drawn on ceramic vessels as decorations of the

Warriors...

"Both in the collections of D. Domingo Seminario and Dr. Boris de la Piedra, there are a series of pectorals and nose rings

PERUVIAN PUZZLE OF STRANGE SHAPE. From: Vision, October 20, 1961.
Museum of Natural History, New York.
In a brief text it is attributed to being from the 9th century BC, that is, from the Chavín culture, but it is evidently later since its style is Vicús-Pabur, from about five centuries later. His copy of metal is evident in all the details. We have seen another similar one in the Museo Oro del Perú, in Lima.
Its shape seems to copy a wheel from a strange machinery or propeller.

that show scenes of the most orthodox

Mochica ritual of the early periods, .

according to the specialist R. Larco Hoyle, and that, in subsequent discussions with other colleagues, the conclusion was reached of the existence of a strong Cupisnique influence.

"With the passing of the years and verifications carried out with the aforementioned specialist R. Larco Hoyle, we definitively came to the conclusion that the Yocala "hill", in the Hacienda Pabur, would have taken place. origin of the Mochica culture, and that periods I and II originate from that area, and then expanded to the south, or either along the coast and valleys of the Department of Trujillo, an area better known as Moche, and the other surrounding valleys.

'., Since it has been taken for granted

that the Lambayecan ceramic forms were borrowed from metallurgical forms and both that process and the designs that decorate them are considered to have come from outside the continent...

“Returning to the typical pieces of the Vicús-Pabur culture, we will point out some basic points of their ceramics. Forms: in this approach it is not even possible to attempt a general plan for them.

This, not only because of its variety, but also because of the fantastic nature of the forms, which makes the use of design and photographic reproduction practically essential for the task.

“*... On the other hand, the ceramist from Vicús, who although he was not a great technologist when it came to pastes, as for example his contemporary Mochica I and II was, overflowed with a few creative imaginations. times appreciable, and a thousand forms that are surely supported by a rich formal tradition, are the stock that must be considered one of the greatest plastic contributions to the world of pre-Columbian aesthetics.

“* ..But we should not forget that most of the geometric shapes of Vicús ceramics respond to shapes borrowed from original metal work; This is the formal process that dominates the panorama.

INCA BRONZE PUZZLE. Author's collection, purchased in Cochabamba. It has a hole with an internal bar, to tie a rope to it. It was used both by throwing it and in the form of a hand puzzle. It is most likely that the called “bristle balls” of stone, abundant in Argentina and Uruguay. come from stone copies of this metallic form, since all of them seem to be from recent times.

Naturally, this metallic form must have been, in origin, well before its use by the Incas.

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THE TRANSPACIFIC ORIGIN OF THE CAKCHIQUELES

In the indigenous manuscript, written in the 16th century with our letters, in the Cakchiquel language (immediate relative of the Quiché, Mayan family), called Memorial de Solola or Anales de los Cakchiqueles, we find a clear and clear reference to the transpacific origin of the Cakchiquels: II

4. Here are the stories of Gagavitz and Zactecauh; This is the beginning of the stories that Gagavitz and Zactecauh told:

“People came to Tulán from four places. In the east is a Tulán; another in Xibalbay; another in the west, from there we arrived, from the west; and another where God is. Therefore there were four Tulanes, oh our children! So they said. “From the west we arrive at Tulán, from the other side of the sea; and it was to Tulán where we arrived to be engendered and given birth to by our mothers and fathers.

This is how they said “(Recinos, Adrián: Memorial de Solola, pages 48-49).

The reference is clear: “From the west we arrive at Tulán, from the other side of the sea; that is, by the Pacific. Naturally, the fact must refer to a leading group, not to the entire Cakchiquel people. And the place of origin is an ancient Capital City (Tulán) located in the West. As for the other Tulás, Xibalbay is the Nadir, in the underworld; The Tulán where God is is naturally the zenith. The place they arrived at should have been considered the Center, the ancient Tula of Mexico.

In the attached work published by A. Recinos, Title of the Lords of Totonica-pán, of Quiche origin, things are reversed due to biblical influence. The author simply declares that the Quiché are “descendants of Israel,” and that they came walking from the East, and that they crossed the sea after their leader Balam-Quitzé touched it with his staff “and immediately he made way for It was later closed again, because the great God wanted it that way because they were children of Abraham and Jacob” (Ob. cit., page 216). There is no doubt that here the biblical influence changed the events.

Another interesting fact, linguistic this time: the Quiché tribes were called Mag or Mak, a word that means tribe: Vukumag, the “seven tribes” (Vuku is "seven"). The word is the same as marka with the loss of the inner r, a fact that means a passage through the Polynesian language with simplification of the final sounds; It is marga, marka in Sumatra, and maga, maka, in Polynesian. Naturally it is the same root of our word region, brand and Marquez, the Lord of a Brand. Manco in Manco Capac, is the transformation of the Aymara Mallku, lord or king, of a brand. The word is of Semitic origin: mallku means king in ancient Syrian.

“*...It is of interest to take into account the “whistling” vessels, which present a series of notes not recorded for other pre-Columbian cultures... We have recorded up to nine holes to produce sounds at the exit of ceramic water.

"...Larco Hoyle... had located a large number of pieces whose characteristics for him would still predate Mochica I, but with all the embryonic characteristics of that culture. But what did not work in this approach was also that, along with those ceramic pieces of such primitive workmanship and shapes, there were already pieces of metal of the best workmanship, including wonderful eye axes. Therefore, in our opinion, it is essential to verify all knowledge and direct

the investigations to which the metallurgists, very, naturally, bad ceramists, who took the “hills” of Vicús, Yecala or El Ovejero for their gigantic necropolis, came from outside the continent, since many thousands of years would have had to take place to arrive to such an admirable mastery of metallurgical technology and even more so, of the use of bronze.

"..,Technically, in the ceramic-graphic field, Vicús' contribution could be summed up in that the orange ceramic, the truncated-conical peaks, which show a borrowing of shape from the work, very possibly have their origin there. in laminated metal, and the same is valid for the glasses, whose body is made up of two half spheres. The decoration through

CERAMIC SCULPTURE OF THE MOCHICA CULTURE I. According to LG Lumbreras, Antiguo Perú, page. 155. This piece shows the perfection of the sculptural work found in the Mochica culture from the first moment of its appearance, no less than about 400 years before the Era. The shape of the peak of the stirrup handle, with a rim like in Chavín, characterizes the Mochica I. The shape

The helmet he presents also appears in Vicús. The way in which the eyebrows have been represented is also important, with triangular incisions, something that disappears later. The sitting position is of Egyptian-Hindu origin. The face is not Mongolian, but of the type of the Armenoid race.

The negative system—used abundantly—is common to the oldest ceramics from Vicús-Pabur, which in many cases is enriched by the "white on red" on the negative; The white or light cream slip is also part of the decoration.

"Attached to this ancient horizon of Vicús, the presence of dark brown ceramics with shell inlays would begin in Mochica... The ceramic pastes of Vicús and Mochica are completely different. The pastes of Vicús ceramics have a thick texture, with an even degreasing but also relatively thick quartz that, due to a good slip, does not protrude to the outside... The firing is even, approximately 750°, and in some cases we have found pieces that, when examined, revealed a much superior cooking. It is evident that knowledge of metallurgical furnaces would have influenced the mastery of this part of ceramics.

"...the few pieces that lack engo-be are of a natural reddish color...

"The oldest ceramics from Vicús... are strictly raised by hand, while those from the preceding periods show signs of mold...

"As for the degree of development of Vicús-Pabur metallurgy, which reveals a true Bronze Age, we can say that no important contributions have been recorded in the cultures that succeeded it."

TAIRONA GOLD NOSE NOSE, NORTHERN COLOMBIA, MADE ON A “TORQUE”, the same as many Phoenician and Carthaginian nose rings, and others from India; Here we see a nose ring made up of a series of aggregates on a small torque, well characterized by its endings. From: Banco de la República, Colombia: The Gold Museum, plate. 74.

ta; Even from that origin, before the Era, no important techniques have been recorded that could be attributed to Lambay-that... some important forms developed in metal were not inherited by the Mochicas or the Lambayaques; Among them, we have the classic rhomboidal spear, and the barbed harpoon.

“We consider it appropriate to point out that the bearded harpoon or spearhead, of impressive efficiency, does not appear in the rest of the pre-Columbian cultures; We do not even have recorded, for the Tia-huanacos or Incas, a weapon tip of such effectiveness. The sizes of these tips vary from 8 cm. up to 25 cm., with the inherent thicknesses and weights.

“The puzzles of all kinds that come from Vicús and Yecala, as well as from Frías, later, are of an exceptional variety. Its shape and effectiveness are very reminiscent of similar weapons from the Old World. The most common are bucklers

THE USE OF THE NOSE BAR AMONG THE OLMECS OF VENT.
Restorative drawing of Stela 3 of La Venta, which is very worn. According to Drucker and Squier, Excavations at La Venta, Tabasco, fig. 68. All the figures with a human face represented have a round nose ring, Phoenician type.

They also have a wide belt with a buckle, something rarely seen in America.

THE MOCHICAN MACES-SPANCES IN GREECE -

ANCIENT. Figure from a Greek vase representing the goddesses Hera and Hebe. From: Lenormant and De Witte, Elite céramographique, in MJ Richepin, New Illustrated Mythology, volume I, p. 64. Hebe has in his hand a Mochica-type mace-spear, that is, with a star-shaped puzzle on one end and a spearhead, or tip, on the other. The same type of weapon appears in Persian representations. In the Moche figures the head of the puzzle is always greatly exaggerated in size. Hera has the type of blouse common in Mesoamerica.

fluted points, but there are ringed clubs of great effective power, and bucklers with overlapping points, of considerable weight and size. The functional design of these weapons had not previously been recognized for America.

“Another element to comment on, almost obligatory, due to its effectiveness, and never more repeated in the pre-Columbian panorama, has been the eye axe; Its back, in addition to having an anthropomorphic representation, or most of the time zoomorphic, is, utilitarianly, a true war mace of considerable effectiveness; These are balanced, effective weapons, which later, over the centuries, in successor cultures, would never be repeated...

a

In some specimens you can see the eyes of the mace, whether anthropomorphic or zoomorphic, made of shell, while the pupil is a point of bitumen, or a similar element, sometimes the oval being a thin sheet of gold; There are examples of those axes that are covered with that fine gold foil, without them ceasing to be weapons, since they are evidently effective.

“Weapons metallurgy, an important basis of a full Bronze Age, is presented in Vicús-Pabur with a complete line of functionally designed weapons, with penetrating and effective edges, which, with the passage of time and the transfer to

later cultures, would have been degenerating, a phenomenon already widely commented on in the prehistory of the Old World and which has been repeated in very different cultures. It is clearly undeniable that it is necessary to consider a chronological support of thousands of years for such a developed technology, as far as metallurgy is concerned - utility, experimentation and design - for the forms produced in Vicús-Pabur.

“In addition to the high antiquity of the Bronze Age in America, represented by the groups of Vicús and Mochica I, with dates that go back to the first centuries before the Era, we are inclined to understand that this very vast development would have occurred in the Old World, and that the forms perfected over the millennia, some of them unbeatable, are a capital part of the history of the development of weapons metallurgy, which was born with the Sumerian peoples.

“If we remember the Sumerians as bearers and inventors of certain exhumed weapons,

ted in Vicús, we must keep in mind that these were bearers of “torques” and that these same ornaments that make their appearance in Vicús and Yecala, are an excellent workmanship, they are similar to the Sumerians and Phoenicians at the ends, which end in spheres or mamelons. In the Mújica Callo Museum in Lima and in the D. Semina-rio Collection there are very particular samples.

“We recognize that a number of forms in metal weapons and tools (many

MAGNIFICENT COPPER AX FROM VICUS, North coast of Peru. According to A. Lommel, Altamerikanische Kunst Mexico-Peru, pl. 57. This form of axes, made of copper and bronze, are only found in Vicús in America, but they appear copied in stone in Costa Rica, etc. The present one, on the opposite side of the edge, presents a feline head with eyes inlaid with shell. In the Old World, the axes most similar to the present one that we know of appear in Ras-Shamra around 1500 BC. There are numerous similar Peruvian examples.

bronze) have been "distributed" in the world of art and archeology as coming from Lambayeque, where, in turn, it is evident that they arrived from

PERUVIAN BRONZE-SHAPED STONE PUZZLE. Magnificent puzzle of the Vicús culture (they are also attributed to Chavín); the copy of an earlier bronze form is manifest in all its details. In the Old World, comparable forms only exist in Persia, around the 10th century BC, and immediately after. Buenos Aires private collection. In the Larco Herrera Archaeological Museum in Lima there are about a dozen similar pieces, which are attributed to the Chavín culture.

from Vicús. But over the centuries, from its "departure" from Vicús to its "arrival" in Lambayeque, the shapes, the original designs were lost and what we see coming from Lambayque no longer lacks edge and above all, in general, of practical use as a weapon or functional tool.

"Inside the world of weapons metal It is curious to observe the metal bearing balls, with or without a ring; not the

we have registered in none of the centers

metallurgical plants close to the Piura River and its tributaries, nor in Lambayeque.

Evidently in America they are the heritage of another tradition within weapons metallurgy; We have recorded them in the extreme southeast of Peru, northern Chile, a large area of Bolivia, and in northwest Argentina...

“Spears of various sections and spears of circular section are the most common forms, and those that we can indicate appear by the hundreds of kilos in the tombs of Vicús.

“In this approach we leave aside

LURISTAN BRONZE AX WITH FACE WITH LAMBAYEQUE EYES.

According to A. Juda, Modern Images in Ancient Times, fig. 16. The human face matters, which is reproduced on both sides. It corresponds to around 1000 BC, and its length is 7 and 3/4 inches. The entire face and especially the eyes correspond completely to the Lambayeque style of the northern Peruvian coast. The detail of the eyes is absolutely the same as the eyes represented in Lambayeque, and is unique in what we know of the Old World. In Melanesia there are more stylized representations of them.

refer to the very extensive tooling, as well as the personal ornaments, all the accessories and other accessory elements that in metallurgy make up the very extensive heritage of Vicús (on the subject there is our extensive work Vicús-Pabur in the Zeitschrift für Etnnologie, Band 95).

GOLD PECTORAL OF VICUS-PABUR. Drawn by Cristian Dorries. Collection Campá Soler. Larco Hoyle linked him with Mochica |. It evidently represents a Tiger Knight, with a belt with a two-headed snake, a plate breastplate, a feline mask, an ax in the right hand and a trophy head in the left. The base is a large crescent.

It corresponds to the old or lower level of Vicús-Pabur.

“And fundamentally it is elucidated

with the emerging research and achievements of Vicús-Pabur, the old dispute of whether Colombian-Ecuadorian, and possibly Central American, metallurgy, had influenced Peru, because it was possibly older in origin than it; But today we know that filigree, false filigree, the use of twisted wires, coffin, damascening, very possibly gold granulation, and many other techniques attributed to the late Incas, as well as alloys such as tumbaga, etc., are the undoubted heritage, for America, of Vicús-Pabur, who is responsible for designating that area of the northern Bronze Coast in America as the center. The diffusion would have occurred unquestionably having as its center that area of the northern coast of Peru, according to the evidence in the department of Piura..."

Before commenting on the above, we will transcribe the conclusions or Colophon of the second cited work by Campá Soler, which is briefly titled Frías. The work is extensive and we would have to dedicate a space as large as the previous one, but we will only reproduce a small fragment referring to some famous gold statuettes. We add that there are still no known remains of true cities of the Vicús-Pabur culture, although there are numerous fortresses.

wham. One of them is "an enormous fortress or defensive walls in the style of Sac-esahuaman" in Cuzco, with triangular projections, and numerous cemeteries, already heavily exploited by the huaqueros. The Frías area, in the province of Ayabaca, department of Piura, would not be unlikely to correspond to the ancient Thinae of Ptolemy, but its remains have not been found.

DOUBLE COMMUNICATING VESSEL OF LAMBAYEQUE, SPECIES OF RHYTON. According to M. Mujica Gallo, Museo Oro del Perú, N24,694 of the Catalog. Of gold and silver. Its shape has been widely copied in ceramics both there and in Mesoamerica, where these metal vessels do not exist. Comparatively they have resemblance to some Persian rhyton vessels. The protruding ring of the vase is reproduced in ceramic in the kerus of Tiahuanaco. The position of the feet is reminiscent of the stone statues of Aija,

Recuay culture.

been found yet. On the coast there are remains of ancient roads that lead to Ecuador and the coast, and which show the importance of ancient trade.

The first quote is a note, very interesting:

“Two gold anthropomorphic figures from Frías, property of the Museum Brünning of Lambayeque, which have been world famous for appearing in the Peruvian Pre-Columbian Art Exhibition “El "Gold in Peru", have been reproduced in large photos and unfortunately they are all classified as Mochicas, when they are very far from representing that style and further from their geographical origin..."

We will comment on that. In the culmination, Campá Soler says:

“Everything would indicate, due to the antiquity achieved due to the measurement carried out on a piece of cloth that kept some metals, using the radiocarbon system, achieved by Prof. J. Rondón Salas, that between 200 to 400 years before the Era The earliest Vicús would have been developed, but already carrying a Bronze Age

NOSE NOSE FROM SOUTH INDIA SIMILAR TO THOSE OF

LAMBAYEQUE AND VICUS IN PERU. From: The Human Races, Gallach Institute. 7.2 Edition, volume I, page. 131. Dravidian woman of the Lambard tribe, Mysore state. Photo E wing Galloway. It is covered in metal decorations, but what is interesting is the nose ring, placed on the left lobe not in the center of the nose. A series of completely comparable and complicated gold nose rings have appeared in Lambayeque and Vicús in Peru. Were they used there in the center of the nose, or on a lobe like here?

in Pre-Columbian America, and since there is no precedent to justify a

development of this technology within the Continent, we would logically have to search for the origins of this knowledge as coming from extra-continental cultures.

“Everything would seem to indicate that the tombs that are in the vicinity of Punta Aguja, on the coast of the Bayo-bar Peninsula, where the Pampa de Yapateo is born, an-

PERSIAN HOOPS OR EARRINGS IN THE SHAPE OF AMERICAN NOSE NUTS. According to R. Ghirshman, Persia, l first 4th and 5th-4th centuries BC; the third, 4th century BC In the central ring you can see the god Bes, he is common in Egypt, but we have never seen him designated for Persia. The feather crown Andean “Ekekos” that look like them. The general shape of these rings is interesting, which in America Northern Peru to Colombia. The engraved motifs are different, since the American forms

Before actually entering the Sechura Desert, they would be the oldest of all.

“There are two remains of importance in the area. One is the one already mentioned, where, due to the constitution of the terrain, as indicated by the word “yapato”', it is somewhat chalky or white clay, which causes the pieces to fall apart almost completely. The other point that was populated in ancient times is a little further north, following almost along the coast, and is around the town precisely known as Sechura.

"What has caught our attention the most is that from that area, through the Piura River and its tributaries, you can reach both the Vicús-Pabur area and its other enormous tomb fields, as well as the area of Frías and everything it keeps in its vicinity.

COPPER HANGING ORNAMENTS, from NW Argentina, similar to those that appear painted in the Mochica drawings of Peru. We have found several similar ones in excavations in the

Sauces culture of Bolivia, so in Argentina they must correspond to the Cóndorhuasi culture. Ethnographic Museum, University of Buenos Aires.

We could say that an extensive area of the province of Morropón, all hydrographically linked, is the cradle of the first pre-Columbian metallurgists, bearers of the Bronze Age in America, who would have arrived on the continent in the first centuries before. of the Era.

“This entire extensive archaeological region, and the great problems it poses, was completely unknown less than fifteen years ago. With the presentation of these discoveries, a new cycle opens

within the studies on the origin and antiquity of pre-Columbian metallurgy, which make us rethink everything and completely, since not long ago in 1959, Dr. LA Valcárcel, as spokesperson for Peruvian archaeologists, He still insisted and published that “the ancients

"Peruvians only knew bronze from the Inca empire." With the discovery of Vicús, the date of Valcárcel and his colleagues goes back more than fifteen centuries. Today all that remains is the memory of those assertions that were so emphatically proclaimed, but that even at that time did not have any scientific basis.”

We have deliberately not cited only the references to the gold jewelry of Vicús; Instead, we reproduce numerous metal objects from Lambayeque. It is important to point out a difference between the metallurgy of Vicús and Lambayeque that Campá Soler makes for us in another of his works: in Vicús there are torcs and the pyramids are missing; In Lambayeque the torcs are missing and there are very numerous pyramids. The presence of the torcs in Vicús cannot be related to the

ancient and first expansion of these by the
Mediterranean and Europe (the same as in Africa

GOLDEN BOTTLE FROM LOS QUIMBAYAS, COLOMBIA. The goldsmithing of the Quimbayas, who subsisted at the time of the conquest, seems to be one of the oldest in Colombia, beginning in the era or shortly before. The present bottle (there are many variants of shape) constitutes a typical example and has an openwork annular foot, something that relates this metallurgy to that of Lambayeque on the northern coast of Peru. The use of ring feet begins in the Old World in Cyprus, at the end of the first half of the second millennium BC. From: Banco de la República, Colombia: The Gold Museum, plate. 1.

and southern Asia), since it is much later; It should be noted that, naturally, torcs were, and are, preserved in many regions until much later times: the Celts used them at the time of the Roman conquest, and they are used today in Africa and Indochina-Indonesia.

In addition, its shape, made in small size, is used as a nose ring by the Phoenicians, and that appears in Vicús, Ecuador, Colombia.

The thin orange pottery is possibly a derivation of the "eggshell" pottery from Camares, Crete; There would be comparable forms in Mycenae and its derivatives, but it also subsists in later times (Roman, etc.), the same as in Mesoamerica. The barbed harpoon is described as an arrowhead with lateral points by Homer. On the other hand, the Vicus types of copper and bronze puzzles have their next counterparts in Persia, in the first half of the last millennium before the Christian Era, although some forms existed before then. The eye axes, which we call tubular handles, existed in the same way in Elam, the South Caucasus and the Syrian coasts. As for the bolea balls-

Bronze dores, with and without ring, seem to us to be of local invention or development, coming from an imitation made in metal of the oldest forms of stone, to which a series of points of origin were frequently added. in metal puzzles; then, in turn, those spiked balls were imitated in stone; its absence in Vicús and its appearance further to the south would indicate quite clearly the question.

In all this, what matters most is the appearance of foundry metallurgy, already fully developed and without precedent on the continent, and even with some forms that in the Old World made their first appearance at the beginning of the Age of the Century. Iron, such as spear tips, which among the Mochicas were used mainly as buttresses for maces, as seen in numerous ceramic paintings. The mace-spear is depicted in Persian bas-reliefs and less clearly in some Greek paintings.

As for gold jewelry, the extreme abundance of nose rings (with a multitude of shapes) shows us rather a direct Phoenician influence, since the Phoenicians were the main spreaders of nose rings in the Old World, while Their use was lacking in Greece and Persia. In America they have a very wide diffusion: Mesoamerica, Andean zone, Colombia, Venezuela, Antilles, English Columbia, etc.

BAS-RELIEF WITH A ROYAL CHARACTER ON A THRONE, FROM PALENQUE. According to Waldeck, in a work whose title we have lost, published in the XXIII International Congress of Americanists, plate III.

The style seems Hindu with Hellenistic influence, both in the face and in the representation of the monarch's body; The representation of the folds on the skirt is, without possible discussion, Hellenistic, and the same in the fabric collars on the necks of the jaguars on the throne. The ram's horn on the side of the king's head is very important, since it was the "Symbol of the Law" and is presented in both the ancient statues of Moses and Alexander the Great. The throne with two feline heads is of the Hindu type. The representation of the muscles is perfect, also Hellenistic. The writing signs, in the upper angles, are not translated. The hat is Phoenician, although we call it “Phrygian”.

There is no doubt, from what is written and from the citations, that towards the middle of the last millennium before the Era, two or three artisans who were metal smelters arrived in America, but only one of them was a caster of bronze objects and a connoisseur of the forms of weapons of the Old World, while the others, or another, only knew the casting of gold and silver jewelry, and their products spread more on the Ecuadorian coasts and in Colombia, Panama, etc. In this last type of metallurgy there seems to be notable influences from Dravidian India, which seem scarce in Vicús. Lambayeque would be the third region to which a metallurgist arrived.

3.—The last transpacific migrations in Mesoamerica, Ecuador and Peru and their possible relationship with the origin of American metallurgy.

cana.

Both for the Peruvian-Ecuadorian coasts and for western Mexico we have an abundant series of news from the first Spanish chroniclers, who tell us about facts of oceanic navigation, both of merchants and of true migrations of peoples composed of at least a few hundred people. . Naturally, efforts have always been made to interpret them as local emigrations over a short distance, from Ecuador, to the north of Peru, from Panama to Ecuador and at most from Central America to the Balsas River, in western Mexico.

We will begin by briefly discussing the latter. In Mexico, references to oceanic relationships have generally been transferred from the Pacific to the Gulf of Mexico, as is the case with references to Votán and his various voyages; but, in other cases, the reference to the Pacific as the first place of origin has been clearly preserved, as occurs with the data that appear in the Annals of the Cakchiqueles (edition by Adrián Recinos), where it says: ''...that from the other side of the sea we arrive at the place called Tulán...' (page 47), and "from the west we arrive at Tulán, from the other side of sea…" (p. 48).

On the other hand, in the same work, edited by A. Recinos, we also find the Title of the Lords of Totonicapán, of Quiche origin and with biblical influences, where the route of origin is located in the Naciente, as we see: "These, then, were three nations of Quiches and they came from there where the sun rises, descendants of Israel, of the same language and the same manners" (p. 216). By the way, it is not the only source in which a group of indigenous people proclaims themselves descendants of Israel.

But even more interesting is a Brief Communication by Robert C. West, published in

CERAMIC FIGURE FROM CYPRUS REPRESENTING A YOUNG GIRL. From around 650 BC, Orientalizing period, with numerous ornaments. According to William Culican, Les peuples mari-times du Levant, in S. Piggott, Aux Portes de l'Histoire, lam. 27.

This figure is interesting because it is representative of the Orientalizing era, and because of the relationship it appears with the sculptures of the coast of Ecuador and Colombia (La Tolita and Tumaco culture), from some centuries BC. The art of treating the features of the face is the same in both regions.

HUMAN CERAMIC SCULPTURE FROM TUMACO, COLOMBIA, WITH CYPRIOT FEATURES. From: Rautenstrauch, Colombian Art, plate. 42. Height 14 cm. Bogotá, Colombian Institute of Anthropology. The artistic style is Cypriot, from the middle of the last millennium BC. The art of Tumaco, which is the same as La Tolita in Ecuador, is the one that in America presents a greater set of features, in the representation of the human face and body, of type Ancient Mediterranean in America. There would seem to be two periods of influence: the first is the present, the second shows features of orientalized Roman origin, more or less from the times of the Era. See attached figures.

American Anthropologist, 1961, where an extract and translation of a Spanish document from 1525 is transcribed, referring to the western coast of Mexico, region of the mouth of the Balsas River, town of Zacatula, of which already

We spoke and that it would appear on the local map of Lopo Homen, on the maritime border of the states of Michoacán and Guerrero. We reproduce what it tells us from that Spanish document:

"Letter from the accountant Rodrigo de Albornoz to His Majesty giving an account of the latest events that occurred in New Spain... (Mexico), December 15, 1525. (Original document in Archivo General de Indias (Se-

villa), Patronato 184, branch 2; published in Collection of unpublished documents... de Indias, 13: 45-84, ref. 63-64).

"... The two ships that were built in Zacatula and a brig are finished, and they could then go to discover and continue on the way to the Spice Factory, which according to the pilots here say, due to their point and letters, is not from Zacatula de 600 to 700 leagues, and there is news from Indians who say that on the way there are islands rich in pearls and stones, and being on the southern side, there must be, according to reason, gold in abundance; and asking the Indians of that coast of Zacatula how they know that there must be islands there, they say that many times they heard from their parents and grandparents that at a certain time Indians from certain islands to the South used to come to that coast that They point out, and that they came in large canoes and brought them gentile things for rescue and they brought other things from the land, and that sometimes, when the sea was rough, there tended to be bigger waves in that part of the South than anywhere else. Those who came here stayed five to six months, until

CLASSIC MAYA HUMAN HEAD WITH ROMAN FEATURES.

From Linden-Museum, Kunst der Maya, plate. 32. Classic Maya, from 300 to 900 CE, from Altar de Sacrificios, Petén.
National Museum of Guatemala. Height 11.2 cm. Unfortunately incomplete, as it would have been important to see the shape of the hairstyle or headdress. His artistic style is clearly of Roman origin with Near Eastern, possibly Syrian, influence. Contemporary-

Sculptures of Hinduized faces only appear among the Mayans. The mouth is somewhat olmecoid.

FRAGMENT OF HUMAN FIGURE FROM TUMACO, COLOMBIA, WITH CYPRIOT-ROMAN FEATURES. From: Rautenstrauch: Colombian Art, lam. 40. From the Tumaco culture, the Colombian coast next to Ecuador, a culture that presents a maximum of features of the Ancient Mediterranean in America. Current height, 20 cm. Bogotá, Institute of Anthropology. The artistic style shows Roman features with oriental influence, possibly Cypriot-Syrian.

The good weather came, and the sea became calm and they set out again; and so it is certain that there are islands nearby, and that there is reason to be rich..." Ob. cit., p. 133).

The author assumes that these boats ensured commercial relations with Ecuador and Panama, but we think that two things must be clarified: the word about large canoes, naturally, has to refer to true high-sea boats, which the local indigenous people They described it with words from their language. Then, the 600 to 700 leagues is clear information that the Spanish, at that time and there, used the true distances of Marino de Tiro referring to the Sinus Magnus (the same as Magellan, who believed in the same distance), since they had identified the Pacific with that Great Gulf, as seen in a slightly later map that we reproduce. Furthermore, the information from the local indigenous people about these merchants must have been greater than that reproduced in the text, since, at the end of the conquest of Mexico, they immediately began to build boats to reach the Spice Islands.

But that is information about commercial travel, and now we are interested in the possible latest information about trans-migrations.

peaceful, and the most important data that the chroniclers provide on this subject refer mostly to the coasts of Ecuador and northern Peru. There are four types of reports, but unfortunately, most of them are very

They are brief and the data that would be most interesting are missing, only one contains greater details, as we will see, and it refers to the region of Lambayeque.

The first report we deal with refers to the migration of the Caras Indians. It is given to us by Fr. Juan de Velasco in his work History of the Kingdom of Quito in South America, written in 1789. This author actually refers to two migrations that arrived on the Ecuadorian coast, first, and very briefly, he tells us the arrival of a group of giants in large reed rafts, which were established on the coasts of Manabí and Guayas at the beginning of the Christian Era; These giants had “very bad habits” and, by abusing common women, they killed them (they had not brought women with them), which is why they dedicated themselves to sodomy. Naturally fire fell from the sky and destroyed them. It is assumed today that this story of the giants has been originated by the discovery of mastodon bones in the area. It has also been interpreted as a migration of Patagonian indigenous people (because they are giants), who arrived there, even though the Patagonians were not navigators.

There is more data about the second migration collected by Father Velasco, that of the Caras; These would have reached the coasts of Nanabí sailing “on the west side”, with a fleet of large log rafts, with sails, like those still used there and like the one used by Keyerdald, that is, his Kon Tiki; Their first arrival had been in the current bay of Caraques, where they would have arrived around 700 or 800 AD. They founded a city there with carved stone buildings. Then they migrated north, to the current province of Esmeraldas and Tumaco, from where they invaded the Ecuadorian mountains, founding the kingdom of Quito there. The author does not report the details of his culture, etc.

The first thing that must be said about this report is that, undoubtedly, its date of migration has been “rejuvenated” in a few centuries and that, as other authors have already indicated, it must refer, in its origin , to the Bahia and Jama-Coaquem cultures, which seem

Its first origin dates back to about 500 years before the Era. We have already talked about the culture of Tolita-Tumaco and its manifest features of Mediterranean origin.

We move on to the second report. We suppress direct quotes, as in the previous case, so as not to extend ourselves too much. This report

It is given to us by Father Anelo Oliva who, around 1631, wrote a work entitled History of the kingdom and provinces of Peru. The work was probably written a few years earlier, but its approval for publication dates back to that date.

Oliva tells us especially the history of the Incas, but his relationship begins with a series of previous events that do not appear in

HEAD AND TORSO OF A MAYA SCULPTURE, WITH HINDUIZED MEDITERRANEAN FACE. From: Linden-Museum: Kunst der Maya, lam. 44. Maya of the end of the Classic, from 600 to 1900 CE; from Chisec; current height 16.5 cm. National Museum of Guatemala. The face at first appears feminine, but the whole represents a warrior covered in cotton armor called escaupil. The art with which the face is made seems to be of Roman origin, but the whole is clearly Hinduized in its art.

no other chronicler. According to this author, his main informant was a quipucamayoc named Catari, belonging to a family of quipucamayocs, descendant of the inventor of the qui-pus called Illa. Oliva says that, after the flood, various groups of settlers arrived in America, by land and by sea, and one of them arrived at the point of Santa Elena, in Ecuador, province of Guayas, where they formed a large population, under the command of a chief called Tumbe or Tumbo, who sent people on reconnaissance to Chile, Paraguay and Brazil, who did not return. The town of Tumbes in northern Peru comes from his name. He was succeeded by two sons, named Quitumbe and

Otoya; The first, so as not to confront his brother, emigrated to the south and founded Tumbes, from where he sent people to the Rimac River (Li-

ma); He had a son named Guayanay, from whom the Incas later descended. Meanwhile, his brother Otoya behaved like a despot and, during his rule, the giants arrived there on rafts across the sea and tyrannized the land until, for practicing the "nefarious sin," fire fell from heaven and consumed them. .

It gives us an important cultural fact: since there was a lack of fresh water, the giants made very large wells, which still exist. Qui-

INCOMPLETE HUMAN FIGURE FROM TUMACO, COLOMBIA, WITH CYPRIOT FEATURES. From: Rautenstrauch, Colombian Art, plate. 43. Current height 20 cm. Bogotá, Institute of Anthropology. The artistic features of this figure, like those of other attached figures, seem to us to be in the Cypriot style of the middle of the last millennium BC, especially on the face. The shape of the cap is Mediterranean, the "loincloth" is the same as the Mexican maxtle.

Tumbe then went to the island of Puna, where he found corn; then he went up to the mountains and founded the city of Quito; Finally, he went to Pachacamac and built the famous temple there. It continues with the history of Guayanay, which reaches Titicaca, and from which the Incas later descended.

There is no doubt that this story is nothing more than a variant, with greater information, of the previous one about the faces, despite the fact that the migration of the giants is delayed in time; But here it is appropriate to say that, according to some, the Caras emigrated from Manabí fleeing from the giants; Father Velasco denies this because they are those earlier in origin. Also, archaeological

DETAIL OF THE FACE OF THE PREVIOUS FIGURE. Same work, lam. 44. Here the features of Cypriot style that we pointed out before appear even clearer.

Specifically, the relationship is very important, due to the migration from Guayanay to Titicaca, because precisely in that region of the Ecuadorian coast there appear some monoliths (human statues), no larger than one meter, that seem to be before Christ, and whose style is undoubtedly ancestor of that of the monoliths of Tiahuanaco. In this way, there may be important remains of an ancient tradition that the author interpreted literary.

The third tradition referred to is not that of a migration to our continent, but on the contrary, of an emigration, and is told to us by two chroniclers, the main one being Captain Sarmiento de Gamboa, in his General History Called Indica. We are told that the god Huira-cocha, the creator of all things, after several adventures, "arrived in the regions where Puerto Viejo and Nanta are now, on the equinoctial line," "he entered with his two raised by the sea, and they were walking on the waters, as on the land, without sinking." That is, they went westward, crossing the Pacific. The indigenous people called the Spaniards Huiracochas, believing that they came from this god, due to the route of their arrival.

What is important in this story is the insistence on citing the coasts of Manabí and Guayas as a navigation point on the Pacific.

EGYPTIAN TYPE FIGURE ON THE LID OF A LARGE COLOMBIAN VESSEL. From: Rautenstrauch, Colombian Art, plate. 39.
From Sinú. Height 35 cm. Bogotá, Colombian Institute of Anthropology. Other similar figures show a more Syrian-Cypriot artistic style. This is remarkably Egyptian as a whole.

The last report is the most important of all, because of the details it contains. It was written by Father Miguel Cabello Balboa, author of the work Miscelánea Antártica, from 1586. This author, the same as the previous one, even tells us that the Inca Tupac Yupanqui, after conquering the Ecuadorian coasts, made a trip by sea towards the interior of the Pacific that lasted a year, discovering there the islands called Hahuachumbi and Ninachumbi, of which he brought black slaves, a brass throne, a horse's head, etc. (the last details are given by Gamboa). At that time, in chapter 17 of his work, Bal-boa tells us the story of the migration of the Lambayeques, which we will quote directly since it shows us a true population migration:

"The natives of Lambayeque (and with them make up the other towns in this valley) say that in very ancient times, which they do not know how to number, there came from the upper part of this Pirú, with a large fleet of rafts, a father of Companies, men

HUMAN FIGURE FROM TUMACO, COLOMBIA, WITH FEATURES OF ARTISTIC TRANSITION. From: Rautenstrauch, Colombian Art, lam. 45. Height 13.5 cm. Stuttgart, Lindenmuseum. Compare it with the previous ones. Here the art of representing the face shows an important transformation. It is no longer Cypriot in style but, in the whole and especially the eyes, shows a style of transformation towards the classic Moche representations.

bre of great value and quality called Naimlap and with him brought many concubines.

nas, plus the main woman, are said to have

called Ceterni; He brought into his company many people who, as well as the captain and leader, had been following him. But what was most valuable among them were their officers, who were forty, as well as Pita Zofi, who was their trumpeter and player of some large conch shells, which are highly esteemed among the Indians; another, Ninacola, who was the one who took care of his litter and saddle; and another, Ninagintue, in charge of that man's drink as a botilor; another, called Ponga-Sigde, who was in charge of scattering seashell dust on the land that his lord had to tread; other,

Occhocalo was his cook; another took care of the anointings
and color with which the lord adorned his face; They called
this one Xam-Muchec; I was in charge of bathing Mr. Ollopcopoc;
He made t-shirts and feather clothing for another of
his prince's main and very estimable names, Llapchiluli, and with
these people (and with countless other officers and men of
account) he decorated and authorized his person and house.

“This Mr. Naimlap, with all his spare parts, came
to contribute and take land from the

THE “IMPOVERISHMENT” OF THE CYPRIOT ART OF TUMACO IN COLOMBIA.
From: Rautenstrauch, Colombian Art, plate. 33.
Urn cover from the Magdalena culture, Colombia; height 34 cm.
Bogotá, Colombian Institute of Anthropology. There are numerous similar pieces. The art
with which the human face is represented shows a clear “impoverishment” of the Cypriot-type art of Tumaco-La Tolita, something that is clearer by reviewing a series of pieces
from the Magdalena. This art, in Colombia, seems to supersede a style similar to that of Sauces-Cóndorhuasi.

mouth of a river (now called Faquisllan-ga) and having
abandoned their rafts there, they entered the inland, eager to settle
there, and having traveled a distance of half a league, they built
some palaces in their own way, which they called Choc , and
in this house and palaces they summoned with barbaric
devotion an idol that they brought with them, counterfeit in
the face of their own leader, this one was carved in a green stone,
which they called Zampallec, which means: figure and statue of
Naimlap .

“These people having lived many years in peace and
quiet, and their lord and leader having had many children, the
time of his death came, and because his vassals did not
understand that death had jurisdiction over him, they buried
him. secretly in the same room where he had lived and it was
published throughout the land that he

(by its very virtue) it had taken wings and had disappeared..."

Next the author gives us the names of a dozen monarchs descended from Naimlap, up to the time of the Inca conquest of the area. That amount of descendants could only take about 300 years before the Inca conquest, so it is evident that

There are many missing in the relationship, the migration had to take place, like all those referred to before, in times before our Era, in the Upper Pre-Classic, since afterwards it did not exist (neither on the Ecuadorian-Peruvian coasts nor in Mesoamerica). no manifestation of important cultural change, not coming from local evolutions, although some small new contributions. Where did the lambayeques come from?

What is said about it today is that they came from the Ecuadorian coasts, but their antecedents have not appeared there until now.

We are interested in the forty officers that Naimlap brought, the master craftsmen of various trades, among whom, unfortunately, the experts in metallurgy, who undoubtedly existed, are missing from the list; but Cabello Balboa preferred to give us the names of the court masters, leaving the metallurgical artisans forgotten.

From the story it is clear, considering the number of the forty artisan officers, that the migration was important in number, since among the emigrants we have to assume that there were also numerous soldiers or warriors, etc., as well as quite a few women. , which, at a low level, would give us a round number of about 500 people; perhaps even double. It was, then, a true colonizing migration. The fact that local chroniclers use the word raft to designate the boats in which they came is nothing more than another local adaptation, the same as in Zacatula, which can designate any type of boat.

A story similar to the last one, but much briefer, is offered by another chronicler who attributes this same migration of the Lambayeques to the ancestors of the historical Chimués, later dominated by the Incas, with whom the Lambayeques seem to have merged.

It seems most likely to us that the relationships referred to between the Caras, Quitumbe, the Lambayeques and the Chimúes refer originally to a single one and, later, to their dispersion into various groups in the regions neighboring that of its first arrival, with undoubted cultural transformation in each region, due to the mixtures produced with the primitive peoples of each of them.

There is also the problem of the Giants. Despite Velasco's contrary opinion, it would seem to be a migration after the basic one discussed, but to see it we have a single fixed point that all the authors repeat: they practiced the “nefarious sin”, as the Spanish called it. so. The attribution of being

“giants” could simply be that they had greater military power, in weapons, later exaggerated by the Spanish in their height when they found bones of mastodons, abundant in the region. We can, then, search archaeologically for the only clue we have of them, that is, the “nephanous sin.”

STATUE OF A NUBIAN KING OF MEROE. According to F. Hazan, Dictionnaire des civilizations africaines, p. 272. Pillar of the temple of Isis in Méroe, Nubia, in stoneware; around the year 100 BC The Egyptian origin of this art is clear in the false chin, which has become heavier and thicker. The general position of the figure has comparable cruder forms in America, starting with the statues of the Ecuadorian coast, the monoliths of Tiahuanaco, the statues of Barriles in Panama, Olmecs, etc. We believe that an ancient and important source of American sculpture is found here.

THRONES WITH WHEELS IN MEXICO? According to E. Seler, Commentaries on the Borgia Codex, volume ll, fig. 154. In the text Seler describes the gods represented, which are Xochipilli and "toys" were provided with wheels.

This greatly expands the knowledge of the use of the wheel in America.
Yes

do"; On the coasts of Ecuador and Peru there is only one culture that the Mochica presents to us; In Vicús, despite sexual events being represented there (the same as in Salinar, etc.), there are no such representations. Would the Mochicas have arrived first in the equatorial region?

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CART WITH WHEELS IN MEXICO? The existence of the wheel in toy animals in pre-Columbian Mexico has been accepted, but it is assumed that they were not used in anything else. The drawing from the Borgia Codex, studied by E. Seler, represents the goddess Tlazoltectl, in front of a type of cart with wheels. Here we have clear examples that the use of wheels was much more widespread in Mexico than is assumed; In the same Codex there are many other examples.

na, and from there, emigrated to Piura, due to the abundance of gold and copper in that place, thus developing the Mochica 1? Future research may clarify this.

The main problem that we have to insist on is that all the aforementioned stories have been "rejuvenated" by the chroniclers, although Father Velasco places the giants in the time of Christ, and Oliva does not indicate dates; but the events it refers would correspond to shortly after, according to its possible interpretation.

The age that Father Cabello Balboa would indicate to us is the least acceptable of all. Hua-man Poma, although without referring to any of these migrations, places the first origin of the Incas in Cuzco in 240 BC. C., a date that must be considered more related to the first origin of the Tiahuanacos. Overall, we could consider that the migration for which we have the most data probably refers to events that occurred in the middle of the first millennium BC.

4.—A Hellenistic, Persian or Alexandrian scientific mission in pre-Columbian America?

What we are going to present below may possibly seem the most incredible of all that we are saying and interpreting in a new way about the parahistorical past of our America, but we believe that the facts we present offer enough information to consider them, if not how

proven, as possible. Specifically, what we are saying is expressed in the title of this section: a scientific mission of Hellenistic origin would have traveled along the American coasts of Mexico and Ecuador-Peru, in times that seem to be a little before the beginning of our Era.

The existence of this scientific mission does not mean, on the other hand, that merchants did not continue arriving to American lands later, even at the same time as the Spanish conquest, according to a reference from the

cronista Gomara.

For us there is the full possibility, we would even say the certainty, that at a time that is not well determined, which in principle would seem to be around the second century before the Era, a date that may perhaps be reduced by a century, a mission scientific study, origin

Hellenistic cultural heritage (arrived in merchant ships?) that, at first, seemed to us to be Alexandrian but, perhaps, has a greater chance of being Persian, under the Seleucid dynasty, toured the American coasts. The Persian origin would even explain the lack of direct news about it, although its results are present in the maps of Marinus of Tire and Ptolemy; The Hellenistic Alexandrian scientific material has largely been preserved, while the Persian has not. That scientific mission would have traveled the coasts of the

South Asia, would have crossed the Pacific and traveled along the American coasts of Mexico to the north of Peru, then returning to its place of origin and carrying a series of geographical information, etc., which has almost disappeared. complete.

We have already presented with sufficient ampleness, the reports we have on the maps of Marinus of Tire and Ptolemy, with respect to which the coasts undoubtedly appear

Pacific Americans. There is nothing there, it seems, that directly refers to our Hellenistic scientific mission, since the best data on transpacific navigation that is provided is the voyage of the Greek merchant Alexander, who reaches Cattigara and returns. .

No direct information on what they would be

THE SYMBOLS OF THE DAYS IN RELATION TO THE HUMAN BODY AMONG THE AZTECS. From a Codex,
Picture-writing, etc., plate. XLIX. In the old world, a similar identification was made, zodiacal, something that is still used intensively in Astrology. Claudius Ptolemy, circa
this, but it undoubtedly copies previous facts. We assume that the present Mexican form is u

The western coasts of Mexico appear in Ptolemy's text copied from Marinus of Tyre.
However, who took the astronomical latitudes that appear there? We do not believe that the merchants did it.

On the other hand, in Ptolemy's detailed map of the Far East, three very important geographical names appear, in addition to two other names and a mountain range that we left aside. These three names refer, the first to a river, and the other two to cities or towns; The river heads northwest, and begins in a mountain range located much higher up.

The river begins towards 17° north, and is called Aspithra; On its margin is the city of Aspithra at 16° 15', expressly indicated in the tables; The other city, far inland, is called Acathra or Acathara, and is somewhat distant from the upper part of the river, at 21° 15' north. The three names seem to belong to the ancient Persian language, unlike others that appear further south and which must be of Sanskrit origin; the names Bramma, Coc-coranagara and Cattigara are evidently derived from Sanskrit.

If we examine things impartially, although the river has a wrong direction, Since in reality it first takes the direction indicated by Ptolemy, but then changes its course towards the east, we find that it, according to its indicated latitude, corresponds, with a difference of just one degree, to the current river called Balsas, and that The city of Aspithra corresponds to the current population of Zacatula, which is on the banks of the river and, at the same time, would be the same

TABLE WITH WHEELS IN MEXICO?

The existence of the wheel in toy animals in pre-Columbian Mexico has been accepted, but it is assumed that they were not used in anything else. There is a drawing from the Borgia Codex, studied by E. Seler, which represents a kind of little table with wheels and even a tablecloth. The LA YN little tables with wheels were used in the Temple of 5) Jerusalem, according to the Bible.

ma than Zacatabe on Lopo Homem's later map, although he places it much further north.

Fundamentally, it is the geographical location of Acathra, at 21° 15' north, since it corresponds almost exactly with the great ruins of Teotihuacán, the great Toltec (or pre-Toltec, according to others) city, in the Valley of Mexico. . We refer to the aforementioned maps.

The fact that Ptolemy's map shows the latitudes of these towns and begins

PROBABLE REPRESENTATION OF A CART WITH WHEELS, according to E. Seler, Codex Borgia. In that work there are numerous similar figures, which should not be confused with the representation there of tripod vessels. They would be a type of tables used in temples, for offering purposes.

PROBABLE REPRESENTATION OF A TABLE OR CART WITH WHEELS, used in temples, according to E. Seler, Codex Borgia. Similar carts or little tables are mentioned in the Bible. The present case seems even (there are several others similar) present a tablecloth, on which various objects or signs are placed.

The name of the Balsas River, which undoubtedly copies Marino de Tiro, means, almost without possible discussion, that the scientific mission we are referring to was not only in those places (and further south), but that it returned to its place. of origin, taking those measurement details there. It is evident that confusion had been created around these data when they arrived in the hands of Marinus, and even more so in those of Ptolemy.

We will now see the traces, confused with mythological stories, that the scientific mission left in Mexican lands, not without remembering beforehand that Miguel Covarrubias located precisely in that region the first origin of the Olmec culture. We will also add that it is unlikely that simple commercial navigators would have sufficient knowledge to take the latitudes indicated in degrees and present in detail what we have said about the northern coasts of Peru, with its three capes, etc., although it is not impossible that an exceptional pilot could do it. We go on to see these historical traces of Mexican stories.

us. The main author who refers to the aforementioned events is Fray Bernardino de Sahagún, in his voluminous General History of the Things of New Spain. This author was a true precursor of modern ethnology, and gathered extensive data on pre-Hispanic Mexico through indigenous informants.

Genas, who had learned our language and wrote in both Spanish and Aztec; Sahagún wrote his work based on this information but it happens, fortunately, that a few of the original indigenous stories that he used have been preserved; among them, what we quote below and which consists of a long recitation in Aztec verses.

«Naturally, Sahagún translated that into Spanish.

plain and incorporated it into his work, de-fective translation, but which has been able to be studied by preserve the original Aztec.

This part of Sahagún's work has, naturally, been widely studied by various researchers and also, naturally, the interpretations made about it are very diverse. One of the first refers to a group of Vikings who, from Greenland, reached the coasts of the Gulf of Mexico.

However, today most authors prefer not to comment on this relationship, considering it as a pure mythological story.

co:

“It has been years without counting that the first settlers arrived in these parts of New Spain, which is almost another world, and coming with ships by sea, they contributed to the port that is to the north; and because they landed there it was called Panutla; almost Panoayan, the place where those who came by sea arrived, and at present it is called, although corruptly, Pantlan. And from that port they began to walk along the shore of the sea, always looking at the snow-capped mountains and the volcanoes, until they reached the province of Guatemala, being guided by their priest, who took with him their god, with whom They always advised each other on what to do. And they went to settle in Tamoanchán, where they stayed for a long time and never stopped having their wise men or fortune tellers who called themselves amoxoaque, which means men who were knowledgeable in ancient paintings, who, although they came together, did not stay with the others in Tamoanchán, because leaving them there they embarked again and took with them all the paintings they had brought from the rituals and mechanical trades. And before they left, they first made this argument to them: “Know: that our Lord God commands that you remain here in these lands of which he makes you lords, and gives you possession, who returns to where he came from, and we with him, but he leaves to return and visit you again when it is time for the world to end; and meanwhile you will be in these lands

waiting for him and possessing these lands, and

THE SIGNS OF THE ZODIAC IN RELATION TO THE HUMAN BODY, according to a German incunabulum from 1484 sign Aries, the neck and shoulders to Taurus, the arms to Gemini, the heart to Leo, the p intestines to Libra, sex to Scorpio, thighs to Sagittarius, knees to Capricorni author who gave this distribution to the zodiacal signs seems to have been C. Ptolemy, the a comparable distribution of the 20 signs of his days, in relation to the human body

We do not believe that the relationship between astral signs and the human body is due to any reason, as a result it is impossible for it to be a "convergence".

all the things contained in them, because He was talking and saying what the rest of us are going to do with our god." they had to do; and they went towards the east

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carrying with them all their paintings, where they try all the things of antiques and mechanical trades: and of these wise men there were only four left with these people who remained, who were called Oxomoco, Cipac-tónatl, Tlaltetequin, Xochicauaca. After the other wise men had left, they entered into consultation, where they discussed the following, saying: "The time will come when there will be light for the regiment of this republic, but while our lord god is absent, how can will it be necessary to be able to govern the people well?, etc. What order will there be in everything, since the wise men took their paintings wherever they ruled, which is why they invented judicial astrology and the art of interpreting dreams, they composed the account of the days, and the nights, and the hours, and the differences in time that were maintained while the lords of the Tultecs and the Mexicans ruled and governed; and of the Tepanecs, and of all the Chi-Chimecas." Because of this, it is not possible to know how long they were in Tamoanchán, and it was known from the paintings.

which were burned in the time of the lord of Mexico who was called Itzcóatl, in which time the lords and principals who were then agreed and ordered that they all be burned, so that they would not fall into the hands of the common people and come into contempt.

"From Tamoanchán they went to make sacrifices to the town called Teotihuacán, where they made two mountains in honor of the sun and the moon, and in this town those who were to govern the others were chosen, for which

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he called it Teotihuacan, which means Ueiti-huacan, place where they made lords." (Ob. cit., vol. III, Book X, pp. 136-138).

A few pages earlier, Sahagún, in another reference to that group of navigators, directly identifies Panutla, Panoayan or Pantlan, with the current population of Pánuco, on the Gulf of Mexico, a region where the Huaxtec indigenous people lived and live, of Mayan language, although quite separated from the rest of the languages of the Mayan-Quiche linguistic family.

Before commenting on this, we will see a recent translation of the aforementioned Aztec text, which we have not obtained in its original edition, which is why we limit ourselves to reproducing what Dr. Miguel León Portilla tells us about it, in his work The ancient Mexicans; This text is more complete and, above all, more emotional, at the same time that it constitutes a complete and ancient historical saga:

Here is the story

what the old people used to say

"At a certain time

that no one can tell anymore,

which no one can remember now...

who came here to plant

to the grandparents, to the grandmothers,

these, it is said,

they came, they came,

they followed the path,

coming to finish it

to rule here on this earth,

that with a single name was mentioned,

as if this had become a small world.

PRIMITIVE STILLS. From: "Encyclopedia Britannica", volume 21, art. Spirits, successively figs. 2, 3 and 4. Fig. 2, corresponds to an ancient form used in Peru, without indicating date or source; 3, from the Tahiti Islands, likewise; 4, from Mysore, in South India. All forms are primitive, and, in the Peruvian case, could not derive from Spanish forms. The author of the article tells us that distilled liquors were used in China from an unknown date, and then for Ceylon and India he places that knowledge in 800 BC. In England the stills, undoubtedly more developed, only arrived around 500 AD. . Aristotle already describes distillation.

A STILL FROM THE OLDEST PERU? Drawing published by Charles Wiener in his work Pérou et Bolivia, with the only information of "Found in Chavín de Huantar". There is no further information, but the tube inside this extraordinary vessel, although clearly poorly drawn, shows that it is a small still, which cannot have been used for anything other than the manufacture of perfumes, not for the manufacture of beverages. alcoholic. It is a unique piece in what we know.

They came through the water in their boats, in many groups,

and they arrived at the water's edge,

to the northern coast,

and where they went, their boats remained,

It's called Panutla,

It means, where, you pass over the
water,

now it is called Panutla (Pánuco).

They immediately followed the water's edge,
searching for the mountains,

some from white mountains

and the mountains that smoke,

They arrived at Quauhtemalla (Guatemala),
following the water's edge.

Furthermore they did not go

for your own taste,

but their priests guided them,

and their god was showing them the way.
Then they came,

there they came,

to the place called Tamoanchán,

which means "we seek our

between home."

And in the place called Tamoanchán there
was dominion for a long time:
then the lordship passed

to the place called Xomiltepec

and there in Xomiltepec

The gentlemen were summoned,

the elders, the priests.

They said:
—"The Owner of the fence and the adjacent has called us,
he has
called each one of those who consider him a god."

They said:

—"Because we won't live here,

We will not stay here, we will look
for a land.

There we go to know

to him who is Night and Wind,

to the Owner of the fence and the adjacent."
(Ob. cit., pp. 23-25).

And there in Tamoanchán there were also those who knew
things,

the so-called codex holders.

But these did not last long,

The wise men then left,

they embarked again

and they took with them the black and the red, the codices
and paintings,

They took all the arts of the Toltecs, the music of the flutes...

They say that their god was speaking to them...

And when they left, they
headed towards the direction of the face of the

Sun.
They took away the black and red ink,

the codices and the paintings, they
took the wisdom, they took
everything with them,

the song books

and the music of the flutes (Ob. cit.,
p. 52).

But the four elders remained, already mentioned in Sahagún, who remade, or rather wrote in Aztec hieroglyphic writing, the codices that the Toltec wise men had taken:

Then they invented the fate account.
us,

the annals and the counting of the years,

Book of dreams,

They ordered it as it has been stored,

and how it has been followed

the time it lasted

the dominion of the Toltecs,

the dominion of the Tepanecs,

the dominion of the mexicas

and all the Chichimec lordships.

(Ob. cit., page 53).

The problem of examining what we have just presented is not simple; but, first of all, the same thing in what was transcribed by Sahagún

VICUS HUB HEADS WHICH ARE GEAR WHEELS. According to R. Larco Hoyle, Pérou, plate. 1 in Vicus by huaqueros, so it is unknown what type of Vicus ceramics they are related to. puzzle, but, especially the first three are clear gear wheels, even We assume that they have been copied from a possible gear used in the arrival ships tra and used as novel puzzle shapes. Nowhere else in the world do they break

that in what Montezuma said to Cortés (see the letter from Cortés cited above), the Aztec monarch spoke directly according to the data of that tradition and the return of the god of the Toltec wise men. Later, we are told that a fleet of boats (not canoes or canoes) reached the coast of the gulf, at present-day Pánuco, but it is then added that "they followed the edge of the water... (and) arrived at Guatemala". That is impossible, because although current Guatemala has a coast on the Sea of the Antilles, that did not happen with ancient indigenous Guatemala. We have already said before that a series of indigenous references that correspond to the Pacific coasts have been "transferred" to the coasts of the Antillean Sea, while the Cak-Chiquels preserved the tradition of their original arrival from the West.

What is evident is that if they reached the coasts of Guatemala, following the water's edge, their point of arrival was on the Mexican Pacific coasts. It now happens that in western Mexico, at about 23° latitude, there are other places called Pánuco: first

place, a river south of Sinaloa; then, a waterfall and two towns, one south of Sinaloa and the other in Zacatecas. And the tradition referred to is

Nahua and has been preserved in the Nahua language, not in Huaxteca or Mayan. The most likely thing is that Sahagún, and even the indigenous people themselves, had this confusion, and that the original Pánuco was that of Sinaloa. In this way, following the water's edge, you would reach Guatemala.

Furthermore, at the beginning of the story two different stories seem to have merged; in fact, the story of a large fleet appears first.

of boats, which represents a true migration of people, like that of the Lambayeque, but then the story refers only to a group of wise men, who embark again and return to their place of origin, while they- They find in the place, a large population and four of those wise men. As for Tamoanchán and its meaning that “we seek our home,” it is undoubtedly a popular interpretation of a word or name that had no meaning in Aztec; the name rather seems to be from

Mayan language, where moan is a bird and chan is a snake. The location of Tamoanchán between the coasts of Guatemala and Mexico seems to be quite clear, coinciding with the interpretation of the place of origin of the tonalpo-hualli calendar made by Rafael Girard, which is very fortuitous, since only there do the steps correspond. of the sun at the zenith and the 260 days of that calendar.

The wise men go “towards the face of the sun”, which has been commonly interpreted as the east, but from Tamoan-chán, in Guatemala, one cannot go in that direction, and furthermore: what is the direction of the face of the sun? The words face of the sun designate the east, and that is how it has always been interpreted, but if we take the word direction, things change and it is the path of the sun, that is, the West.

The Toltec wise men left, and they took their books, where all the science and their arts were; Then, the four wise men who remained remade that science for the use of the ruling class that remained there. According to Sahagún, those four wise men were called Oxomoco, Cipacto-natl, Tlaltetecuin and Xochicauaca. The first two names clearly correspond to the 11th and 1st days of the Aztec month (Cipactli 1, and Ozomaztli 11), the third begins with the Aztec word Tlal-, which means "earth", and the fourth would be in relation to the last day of

Aztec month (Xochil); but those names warm

Dáricos were possibly locally older, since they appear in other stories with the Fifth Age and the god Quetzalcoatl, where the first two constitute a kind of couple like Adam and Eve, in which it is not clear which was the male and which was the female. woman, since the interpretations of the chroniclers vary.

What matters most to us for our interpretation is the Science that those wise men left behind, and that was later reconstructed or written in Aztec hieroglyphics. That science consisted, as we are told in the Annals, in the counting of years (even counting hours), that is, a calendar whose perfection is known and which we will see better later; then the account of destinies and the book of dreams, a divinatory calendar and a book of interpretation of dreams, also with an astrological basis. All of this was preserved until the times of the conquest, except the historical works

who ordered Itzcóatl to be burned to reform the -

Aztec history. Possibly, the list lacks mention of two other important works, which undoubtedly existed: a work on the organization of the State, that is, Law and Justice.

MAYAN STELE OF TIKAL, NUMBER 32, HEIGHT ABOUT 2.30 METERS, according to WR Coe, A Summary, etc., fig. 6. Two of the features sculpted there are of interest here; first, the clear representation of a chain with abundant links, whose first origin has to be metallic, no matter the material in which it was made; then metals were not known in Tikal; second, the ornament that forms the belt, which shows a kind of snake with two human heads at its ends, the first with a developed twisted mustache. The representation of the snake with two heads appears in America in Columbia, Mesoamerica and the Andean area.

cia, which appears quite clear in what is related by Sahagún, and another on Medicine, which is found fragmentarily in other places in the relationship by the same author. All of this was preserved and developed in the great civilization of Teotihuacán.

We are interested in another detail in the relationship, the reference to "red and black" ink, symbolizing Aztec and Mayan hieroglyphic writing.
This is Egyptian in origin, and that is how the ancient Egyptian papyri were written, but at the time we are dealing with that cultural trait, they had spread, naturally, along with the papyrus scrolls, or books, both to the Roman civilization like the Seleucid Persian. Furthermore, Mexica paper is not paper but papyrus as we have already said, and Mexican books were used both in the form of scrolls (like the Greeks and Romans, according to the chroniclers) and folded into accordions (a characteristic of Sumatra). , China and Japan), which are the only ones preserved.

All our previous interpretation about the existence of that Hellenistic scientific mission

ca, it may seem at first like a fantasy exposed about traditional Aztec facts, which we have interpreted through an a priori idea; But it happens that in indigenous America there was a true science, especially astronomical and calendrical, for which it is not possible to find any other explanation than the one presented. The necessary antecedents do not exist on the continent. The same for the "false" sciences of astrology and the interpretation of dreams.

We are struck by the use of the name Toltec, applied to these wise men or their sciences and arts, as we have seen, when the people called Toltecs appear many centuries after what is told in that story; It is clear, then, that this name was applied first to the group of companions of those wise men, and then to those who would claim to be descended from them. What origin does that name have?

It seems to be a Nahua name, which means wise man or master craftsman; due to its relationship with the divinatory sciences, it does not fail to remember-us to the Chaldean astrologers. We believe that the Toltec = Chaldean equivalence would not be impossible.

Evidently, on this scientific mission there would have been no blacksmith, nor other craftsmen to teach their trades, but true scholars, whose fundamental interest seems to have been to carry out astronomical studies. Consequently, after a stay of at least many months, perhaps years, they left here the science they knew and not artisanal knowledge.

They left first the knowledge of the sphericity of the Earth and the geo-centric conception of the Universe, together with its measurement with respect to the diameter of the Earth and a five times larger size for the Universe, an idea that is originally Persian-Hindu; then, the knowledge of the relative position of the planets, the Sun and the Moon, with respect to the Earth, and their rotation around it, accurately measuring the duration of their rotation; Likewise the division of the circle into 360°, which we will see both in Mesoamerica and in Peru; the calendar with the leap count every four years, established in the Old World by the decree of Canopus in 238 BC. C.; the full knowledge, which we will see in the last chapter, that Venus and Mercury are interior planets, while the other three are exterior; the knowledge of aphelion and perihelion, discovery of Hipparchus, or perhaps Chaldean, which appears revealed by the position of the great staircase of the Kalasasaya of Tia-huanaco; the elimination of four days every 520 years, as a calendrical correction of the excess of counting in leaps (something that is not known when it was discovered), which even led to the known fact that the ancient Mayan calendar was more perfect than our current one, the knowledge of the four elements, identical to those of Empedocles and different from the five elements of the Chinese; the knowledge of the Roman balance, an invention of Archimedes in its perfected form, on the northern coast of Peru, and various points in Colombia and Venezuela, etc.

Then, although these are sciences today called “false”, we have the divinatory or astrological calendar, even with the detail of giving newborns the name of their astrological day of birth, a practice that also came to China and the coast of Guinea, and that we preserve in the custom of giving children the “name of their saint””; it

same as the interpretation of dreams, following what is detailed in a special book (the chronicler Motolinia says it very well), and also attributing to the members of the human body the different signs of the twenty days of the month, something that we still do in astrology with the signs of the Zodiac (see illustrations) and which, as far as we know, was first done by Ptolemy although, without a doubt, he was already copying previous authors. We also find in Sahagún and other chroniclers a series of names of materials, especially when he tells us about their sale in the Mexican market, whose disguised type immediately reveals its origin from the science of alchemy; In relation to this, the knowledge of distillation with stills, known both in Mesoamerica and in the northern Andean zone, and never mentioned.

Much of this knowledge did not appear in the Old World until about two or three centuries before our era, although some of it had previous antecedents. The fact of knowledge of the rotating rings, a kind of Armillary Sphere, an invention of Hipparchus, or earlier Chaldean (?), applied to astronomical interpretation, which we will see later in Mexico, is notable. Regarding Mexico, we have seen that hours were counted in the calendar, but in Peru another much more important fact occurs: Huaman Poma tells us about the counting of minutes and points, which should not surprise us too much when we know that the Chaldeans of that time counted minutes, seconds and thirds or scruples, in old Spanish.

In summary: the Hellenistic scientific mission

What we are talking about, would have left in America a series of knowledge whose appearance in the Old World occurs around a couple of centuries before Christ, and this shows us that the arrival of new knowledge occurs that could not have existed in previous times. to the last important transpacific migrations, produced in the middle of the last millennium BC. C., and that they brought here the elements that originated the formation of the cultures of the Upper Formative, from which the native civilizations developed.

Naturally, in later times the traders we have spoken of continued to arrive, more or less sporadically, but they do not seem to have introduced any important elements into pre-Columbian American cultures, apart from traits of Hindu origin.

CHAPTER V

Material and social objects of transpacific relationship in America and its relationship with the Old World. An American ebb in the Old World.

1.—General comments and study of architecture and sculpture in America and the Old World.

The material we have to deal with this chapter is so extensive that we could write several books with it alone, so we will have to limit ourselves to briefly explaining a series of very specific facts referring to a few topics.

We will begin by discussing here what concerns architecture and sculpture in America, and its possible relationship with similar features of the Old World.

With regard to architecture, what has always been sought to compare between Pre-Columbian America and the Old World are the Mexican pyramids with the Egyptian ones, a relationship that has been categorically denied and not decided.

We talk for no reason, but the elements to compare are many more, and of them we can only deal with a few.

Firstly, rammed earth and adobe architecture predates stone constructions, if we leave aside the first rough stone constructions that do not constitute true architecture, apart from the great tower of Jericho. The architecture of rammed earth and adobe, on the other hand, already appears fully developed, to the point of building important towns, in ancient Anatolia, since the 8th millennium BC. Subsequently

It spread through Mesopotamia, Persia, etc., to Egypt, in the times of the first two dynasties, a time when all constructions were made of adobe. In Mesopotamia we first found a type of hand-molded adobe, in the shape of wedges; A similar form is found in the oldest buildings on the Peruvian coast, and later appears in the

chullpas (Mausoleums) of the Altiplano of Bolivia and southern Peru, built a thousand years ago. Later, quadrangular adobe made in molds was used in all of the aforementioned regions.

The true brick, the smaller-sized kiln-fired adobe, appears in Mesopotamia in the period of El Obeid (Wolley, p. 632), and naturally continued in use in later times, although not all buildings. Things could be done this way due to lack of fuel; On the other hand, in the Indus civilization, construction with baked bricks was commonly used.

common, due to the abundance of forests in the region. That also reached Egypt, and much later to the East. In America, the use of fired brick is found among the Mayans, and their ancient cities of Comalcalco and Bellote were almost exclusively built with it, due to lack of stone in the region. Burnt brick is an invention, so it has to be an outside influence.

Regarding the wall constructions and

Adobe, are also inventions, and are found widespread in America from the region of the Pueblo Indians in the north, to NW Argentina and neighboring Chile, even existing in regions such as Tiahuanaco, where the stone was abundant, the same as in all the valleys and in the Altiplano of Bolivia. Its greatest development appears on the Peruvian coast and among the Olmecs, in both areas with pyramids.

But we are more interested in developed stone architecture, that is, architecture formed with polished stone blocks, since in it we can see its place of origin and its diffusion in the world.

In Egypt, at the beginning of the Third Dynasty, under the reign of Pharaoh Zozer or Soser, around 2700 BC. C., the Grand Vizier Imhotep, who naturally had the entire working force at his command.

PERSIAN BUILDING THAT LOOKS LIKE INCA. According to R. Ghirshman, Persia, lam. 178. Pasargadas, building a terrace, 6th century BC Walls with padding like the Incas; According to the author: “It is Phrygian, radiated to Urartu, where the Persians knew it.” (p. 131). They also knew

Under the empire, he conceived the idea of having the adobes copied in stone and with this stone architecture was born in the world: the first Egyptian pyramid, the fluted columns (which we believe are of Greek origin), etc.

Crete; It is worth noting here that that first stone architecture, when copied from adobe, was necessarily made with small and regular stones; Later, stones weighing hundreds of tons of weight were used.

weight, as we all know. Interesting in the detail

That spread to the Syrian coasts, Anatolia and

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AN ILLYRIO WALL THAT LOOKS INCAIC. View of the entrance to one of the eight gates of the v
4th century BC; This door has been built in the century | AC Naturally the style of
The stones are clearly Inca in type. The shape of the drain appears on the walls of the Ka
Archaeological. State University of Tirana. Tirana, Albania, 1971.

IN ARCHITECTURE: THE ROMAN “IMPLUVION” AND THE GRIE “MEGARON” GO IN MESOAMERICA

Most authors, when they find Old World features in American architecture, refuse to compare them, but some researchers dare to do so as we see in the following two quotes. The underlines are ours.

Teotihuacán, Zacuala palace:

“Huge compared to our windows, these openings often form small patios reminiscent of the Roman impluvium. And all the more so since, like that, they present the characteristics of the water basin: enclosed like a box by a wall of fifteen to twenty centimeters, the floor is inclined towards a perforation that communicates with the underground drains (Plates. 26 to 28 we reproduce one).

With the difference that immediately above the pool the porticoes are generally raised” (Sejourne, L.: Arquitectura y Pintura en Teotihuacán, page 31).

Town of Chiconauhtla, dried northern shore of Lake Texcoco; Vaillant excavations in 1935:

**... The ruin is made up of three groups of houses with a total of ten rooms and several smaller rooms, almost all of them connected to each other and built around small patios. Each room has the characteristic plan of the “mega-ron house” of archaic Greek times, with a closed hearth and a hall framed by two columns, open in all its width towards the courtyard…” (Krickeberg. W.: The ancient Mexican cultures, page 105).

The megaron-type house existed before in Anatolia and the Syrian-Palestinian coasts; We do not know the impluvium outside of Rome, but there may undoubtedly be important antecedents. In both cases we do not believe that they are simple inventions, capable of being invented independently. Furthermore, in illustrations and not very clear descriptions that we know, the same thing would have existed in Peruvian civilizations.

of the work of the padding on those Urartu stones, where the Persians knew it” (p.
regular, as it appears in the best buildings 131). It is also found in Greece and the
Inca cios; then, according to R. Ghirahman, the Wall of Jerusalem.

in his work Persia: “This technique is of origin. In Egypt there was no Hittite stone architecture.” Adopted by the Phrygians, it radiated irregular polishings, that is, polygonal; that

INCA “USHNU” IN HUANUCO VIEJO. According to JV Murray GJ Hadden, Cuadernos de Investigac Ushnu was the “Navel of the World” in the Inca cosmogonic conception, and this building is preserved from them. Walls with cushioned stones; compare them with the Persians, etc.

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seems to have been invented a little later in (more difficult to make than the ce blocks regula-

Anatolia (Hittites?), from where it passed to Mycenae and res, since it requires exact measurements of each Crete, then to Spain, Etruria, etc. Its use, which seems to have been intended for intensive construction among the Incas, is well known. In tion of fortresses, because the stones origin, this architecture of polygonal walls have keys to each other and, therefore, can be

This is x

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Borgia Codex, according to Seler, plate 17. Part of the representative series of the Star of indicated towards the West, Xochiquetzal as solar goddess; on the left, representing the S

occupying more than half of the sheet, the black Tezcatlipoca. with the 20 signs of the day his body and distinctives.

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the blows of the besiegers' battering rams (secondarily, they are anti-seismic). Later it was also used for other constructions.
common.

This type of architecture spread throughout the ancient Mediterranean, as well as South Asia, reaching Indonesia (later to Polynesia), although the number of ancient constructions known from those regions is very limited, but let us not forget the walls. stone from Ceylon, cited in the Ramayana, from at least 500 BC. C. This architecture arrived in China and Japan shortly before Christ. On Easter Island we have magnificent polygonal walls, identical to the Inca ones.

It seems to have arrived in America at the time

CAPITAL OF A SQUARE COLUMN OF TIAHUANACO, located next to Puerta del Sol. There are about forty similar pieces, especially today in front of the church in the town of Tiahuanaco and in neighboring houses. We do not know that the existence of these capitals, or any type of columns, had been previously noted in the Tiahuanaco civilization. There are others, a few remains, which are decorative half-columns on the front of some building. The shape of the present capital has its greatest similarities in the Minoan civilization.

Possibly they served both to support the ceiling in long, wide rooms, and to support the front.

THE “GATE OF THE LIONS” OF MYCENAS IN INCA PERU. “The cover of the pumas”, in the Inca administrative center of Huánuco Viejo, Huánuco, in R. Ravines: 100 years of archeology in Peru. This motif of decoration on doors, in the Old World, is exclusive to Mycenae and the Hittites; In America it appears on Recuay lintels and Inca buildings, and was preserved until Inca times as we see. Convergence? Landscape analogy? You have to have a lot of will to believe that.

very ancient, perhaps along with the aforementioned Egyptian-type stone axes from Kotosh Wayrajirka, but, naturally, its complete development is later. In the developed civilization of Chavín it is already perfected, and thus it reaches Tiahuanaco, the Incas, etc. In Mesoamerica, its first appearance would be in Monte Albán I, naturally continuing in later times. Regarding the polygonal architectural system, its highest expression of development in the world is found in the Inca fortress of Sacsahuaman, in Cuzco; It also appears in some places in Mesoamerica.

We clarify, once again, that this architecture means, among other things, the existence of a guild of artisans specialized in the

RECONSTRUCTIVE DRAWING OF THE PALACE OF SARGON II IN KHORSABAD. According to Place. Compare it in itself attached, with the Palenque Palace whose plan is entirely similar.

matter, with the necessary knowledge to make it and to move the great weights of the stone blocks, and, furthermore, in the case of temples, etc., with the astronomical knowledge essential to orient them according to the religious requirements of the time. It is generally assumed that the priests were the possessors of this knowledge, but that is a pretense; The cathedrals of the Middle Ages were not built by priests, but by a guild of craftsmen, although there may have been priests among them.

We suspect that the pyramids may have a first origin in stepped wooden constructions, used for funerary purposes, as occurs today in Burma. The Egyptian ones were entirely built of stone; The oldest ones in Mesopotamia are made of adobe, then baked bricks, at least in their base and covering, but (the ziggurats) had their own shape different from the Egyptian and American ones, and in their most developed form they had a staircase, Or rather a ramp, in a spiral, that went around it. Different were those of Elam, of which we know well, at least one, from the 14th century BC. C., that of Choga-Zambil, made of adobe and baked bricks, with four staircases, one on each side, topped with arch-shaped doors. Pyramids with stairs on all four sides are found in Ceylon (we do not know since when), then in Indochina, Java and America, especially in Mesoamerica, although many step pyramids in America have one (or

two) stairs in its front part, like some nas of Mesopotamia. At least one Mayan pyramid has arches over the stairs, and there are the same type in Indochina.

The pyramids of the Peruvian coast are made of adobe; those of Tiahuanaco, made of adobe with stone covering (stone that was stolen for Spanish constructions and of which only traces remain); those of Mesoamerica were soon completely covered in stone. We do not know of a single American pyramid that has been completely built of stone, like the Egyptian ones, so its relationship of origin is evidently with Mesopotamia and Elam, not with Egypt, something that is evident from the beginning because it is a base. These are temples and not tombs, although sometimes tombs have been built in them, as was the case in our churches.

We move on to another topic. It is known to everyone palace of Sargon II of Assyria in Khorsabad, since it is one of the most famous palaces of antiquity; Its plan is particularly interesting to us: the complex, very large indeed, is made up of a large building with a series of lower patios, all in adobe, except for the doors, etc., around which there are a series of rooms; On one side, in its center, it has a typical ziggurat with a spiral ramp. We reproduce the figure with the reconstruction of the complex, together with the plan of the famous Mayan palace of Palenque, from the Old Empire: the similarity is astonishing, and more

even if we consider the exact place that the tower of the Palenque palace occupies with respect to the ziggurat of Khorsabad.

There is no doubt that the builder of that Mayan palace had the knowledge of an architectural school of palace construction.

In Chanchan, on the Peruvian coast, similar events are recorded. Enough with what has been said: we refer to the illustrations.

Obviously, from what we have seen, the

most developed American architectural tradition, especially in Mesoamerica, is the continuation of an older tradition of

Anterior Asia and the eastern coasts of Mediterranean and, to a large extent, corresponds to the

period called orientalizing. We see another example, which we illustrate abundantly: in Assyrian architecture, and even more so in Persian, we find a form of stepped battlement with a kind of cupboard or central opening, we find exactly the same in the palaces and temples of the Teoti civilization -huacán, in the Aztec codices, as well as some of its variants, in triangular shape, with various motifs. Together, an ornamental motif in the shape of a rope is spread

twisted, which appears in Assyria (there is only one Sumerian antecedent) and arrives with the orientalizing expansion to the Mediterranean, and which also appears in Teotihuacán, Paracas, etc.

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MAP OF THE PALACE OF SARGON Il IN KHORSABAD. According to Place, Nineveh; taken from Perrot and Chipi
according to a palatial architecture that was general then throughout North Anterior Asia
Palenque, whose map we give to the side. The similarity is greatly accentuated if it is seen that the ziggurat

four-story tower.

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THE PLAN OF THE PALENQUE PALACE, Old Mayan Empire. According to John Lloyd Stephens, Incidens and Y ucatan, New York, 1841. Their general similarity in the arrangement of the courtyards, corred the four-story tower, which occupies the same place as the ziggurat in Sargon's palace see comparing both maps. This palace measures 260 feet wide by 310 feet long, at the same time type of palaces, with their various patios, etc., corresponds to a type that spreads throughout Assyria, etc., and which naturally has small modifications everywhere. Even your

Ziggurat or temple is represented by a Church.

Arches in architecture, false and true, as well as vaults, seem to have begun to develop in the oldest Assyria, previously, but in smaller sizes they had been used for tombs, sewers, etc. Knowledge of the true arch is well attested in some Mexican tombs, in Mayan buildings, etc., but it was not used in major architecture, so it has been easy to deny its knowledge in America. On the other hand, the false arch, like the false vault, had great development among the Mayans, as well as in Indochina and India. The typical trapezoidal Inca doors were used in ancient Greece, where they were called aticurgas, the same more than in Etruria; They were possibly made of adobe on the coast of Peru, and therefore their transit period has not been preserved.

It is accepted that columns abound in Mesoamerica, and also in Peru, although the latter is generally denied, but they can be seen in the palace of Luna-huana, south of Lima; They also existed in Tia-huanaco. In both regions they are round and square. The most beautiful columns we have seen from indigenous America are those in front of the Chavín temple.

The American capitals that we know are always square, of the Cretan type. The triumphal arches are important, with Egyptian antecedents; They are a Roman invention, which spread to India, etc. Its first forms have a single arch and in times after the Era they acquire three; Among the Mayans, in the city of Labná, there is a beautiful triumphal arch with three doors,

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PLANT AND SECTION OF A TIERRADENTRO TOMB, Colombia.
According to E. Silva Celis, The archeology of Tierradentro. All the details of this tomb are entirely similar to types of tombs from the Ancient Mediterranean. The present one has two central columns that support the roof, dug into the same rock. Similar tombs are found in Western Mexico, at the mouth of the Amazon, etc. The lateral niches that it presents

appear alike in the chullpas of the Altiplano of Bolivia and Peru, which are similar tombs built on the surface, the same as the nuraghas of Sardinia, in the Bronze Age, the tombs of Palmyra in Syria, which have exactly the same shape as the chullpas.

RELIEF WITH THE REPRESENTATION OF A TEMPLO IN A PARQUE REAL ASIRIO, in Kouiouadjik. British Museum. De Perrot y Chipiez: History of Art in Antiquity, fig. 42. Several details are of interest: the battlements staggered, which appear in the temple and in the small tower-shaped fire altar; then the door with a true arch, which the Assyrians were the first to develop, then the Persians inherited, and from the latter they received them

Etruria and Rome; Then there is a series of three false arches, which the Assyrians were also the first to develop, and which widely reached Mycenae and the Mayan civilization, the Chavín, etc.

although it is built in a false vault. Stadiums are also abundant in Mesoamerica.

rich, but they are easily left aside as ball games.

The sunken patios seem to be a typical feature of the ancient Canaanites, although it seems to us that they are quite related to the so-called public baths of the Indus civilization: they appear in Chavín, in the small Kalasasaya of Tiahuanaco, in Monte Albán, etc

Monolithic doors, built in a single block of stone, we only know exist, in the world, in Tiahuanaco and Persepolis. Doors with lions as guardians on their sides appear among the Hittites, in Mycenae and in Huanuco Viejo, in Peru, Inca civilization. For the

. little that we know about the subject, the type of architecture

stone tectura of Tiahuanaco appears with extraordinary resemblance, with the same steps, in Urartu.

Of the funerary architecture, we will only say that the forms of tombs excavated in the rock, hypogea, in the form of a vaulted cave and often with one or more central columns, are typical of the ancient Mediterranean, part of Indochina, etc. . and from numerous places in America, from western Mexico to the Andean zone, especially Tierra Adentro, in Colombia, etc.; Also the mausolea, although they vary in shape, are related to the nuraghas of Sardinia, the tombs around Palmyra and the Andean chullpas.

We move on to discuss the sculpture, we will be very brief with this topic, precisely because of the abundance of existing material.

There is a famous Canaanite temple, from the 13th century BC. C., in Hazor, Palestine; has a sculpture

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TOMB WITH PAINTINGS OF TIERRADENTRO, Colombia. According to E. Silva Celis, The archeology of Tierradentro, lam. Vile. The paintings are geometric and in the colors red, black and white; The two columns that support the roof, dug into the same rock, stand out below.

seated human figure, a series of stone pillars and, on one of them, hands sculpted in a praying attitude; comparable hands found in America, and the best of them is a “palma” of the culture of El Tajín, in the Gulf of Mexico.

-We know of only two statue-making workshops in the world: the first is located on Easter Island and is well known; The second, of which we present an illustration and which is very similar, is found in Syria and belongs to the Hittite civilization of the end of the 11th millennium and the beginning of the next. Their sculptures have, at the same time, Olmecoid features and others that resemble Tiahuanaco. Also the last Hittite architectural constructions in Karatepe, Karkemish, which show figures in bas-relief, present relationships with the stelas of Serro Sechín and Monte Albán I. Naturally, the relationship has to refer to an older moment of the Hittite An eagle knight there has his replica in a Moche painting of a vase.

The stone sculptures of the Andean region are generally called monoliths, and this avoids their comparison with statues; but we present a sculpture from the Huari-Tiahuanaco civilization, which cannot be considered as a statue.

Almost no sculptures are known from the Incas; The few that there are are small in size and not very perfect; But when reading the old chroniclers, we see that the major Inca statuary had developed in the foundry of statues.

cast in gold, even life-size, and that is why they were promptly melted down by the conquerors. We didn't keep any, but they must have been much more perfect than the little idols we know.

2.—The Native American pottery and its forms of imitation metal, glass, horn, wood, etcetera.

Native American civilizations have always been accused of not having known the pottery wheel, so they would be at a purely Neolithic level of development.

In 1970 we went to the International Congress of Americanists of Lima: when visiting the Gold Museum, in the company of several colleagues,

RECONSTRUCTION OF THE SHAPE OF THE PYRAMID OF TCHOGA-ZANBIL, ELAM. According to R. Ghirshman, La Ziggourat de Tchoga-Zambil, pres Suse, fig. 10. This Elamite pyramid, built in the 13th century BC, with its five floors and stairs on its four sides, is the most similar to the Mesoamerican ones that we know from the Near East. The Mesopotamian ziggurats, with their spiral staircase, are different, although there is a Mesoamerican drawing that represents a similar one. It is worth noting that the Sumerian hieroglyphic sign to represent the pyramids presents an equally stepped shape with four staircases, which must have corresponded to prehistoric ziggurats.

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RECONSTRUCTION OF A TEOTIHUACAN PALACE. According to L. Séjourne, Architecture and painting in Te of the author. It matters (both the architecture as a whole, forming a closed complex but at the same time they have columns around them and a kind of basin for the water of especially the battlements with a small central window, which crown the edges of the building and which

the Persians

We saw a necklace of hollow gold beads, approximately a centimeter in diameter, which had a series of striations that made us say: That had to be polished on a lathe. Our companions laughed and reminded us that the lathe had not existed in pre-Columbian America. Naturally then we could not answer them.

Several years later, a friend brought to Buenos Aires, back from a trip to Peru, seven small torteros or distaff weights, of civilization.

tion Paracas, beautifully painted on the upper part; He gave us one, which we reproduced: upon looking at its lower part, we were immediately surprised by a series of regular concentric lines, which demonstrated without a doubt that they had been made on a wheel. More recently, we saw a ceramic torteros necklace from Ecuador; Its owner gave us one, which we also reproduced; Of the hundred pieces that made up that necklace, no less than a dozen had concentric lines made on a wheel.

We believe the case is clear. Undoubtedly, the heavy spindle pottery wheel did not arrive in America, but some form of small wheel used to polish small gold jewelry did arrive, and was applied to the manufacture of ceramic pieces.

small pottery, such as torteros.

Then there are the molds, which must have originated from writing seals; larger in size, there seems no doubt that their first use was in metallurgy, although they were later applied to the construction of pottery pieces. We do not know when this object was first used in the Old World, but at least in the Middle Bronze Age it was used to make figurines or statuettes; Its application in the making of clay vessels seems typical of the beginning of the Iron Age, but we have little data about it; Its diffusers seem to have been the Phoenicians. In America, according to Larco Hoyle, molds were already widely used in the Cupisnique culture, from before 800 AD. C. In Ecuador, in the Chorrera culture, mold-made figurines appear, possibly from a few centuries before. In Mesoamerica their use is much later, since they appear precisely with the full development of the Teotihuacán civilization.

In other words, the use of molds for the manufacture of ceramics appears in America, according to their existence in Chorrera and Cupisnique, at the same time that their diffusion occurred in the Old World, in the middle of the Age of the Iron, by the work of the Phoenicians.

STEPPED BATTLEMENTS AND WITH “TOCOS” IN PERSEPOLIS. Tocos, in Quichua, are the species of alac battlements, fundamental ornament in all Inca buildings. The same shape of battlements with Teotihuacán, as will be seen in the attached illustrations. This was also used in times They represent the noble Persians and Medes: the first with a crown of feathers and the second Headdresses are represented on Moche ceramics. Photo (C) Henri Sierlin, Geneva, in

The use of graphite, to give a metallic appearance to ceramics, occurred in Europe at the end of the Bronze Age and was intensified in the Hallstatt culture of the Iron Age, apparently coming from Etruria. . It must have been known before in ancient Asia, but we have no data. In America it appears in the Cha-vin culture, then in the Atacameña, etc. Post-fired painted ceramics, especially with resins dyed in different colors, are known in Egypt at the end of the Pre-Dynastic period. In China it is developed in the form of lacquer, since

mid-second millennium AD. C. It also exists on the Syrian-Palestinian coast, etc. In America it appears (we have had numerous fragments with that painting in our hands, in Kotosh Wayrajirka) since before 1800 BC, and reaches its peak of development in the Paracas culture. It also appears in western Mexico, at least since the Upper Preclassic, in Paracas it is earlier.

Glazing on ceramics is important. It arose in Egypt in ancient times, which we have not been able to date. In Assyria it is used in

decorative plaques for buildings; in Rome it appears in ceramics for utilitarian use, made in molds, about two centuries before the Era; in China it is earlier, but it spread widely (with sealed forms as in Rome) during the first Han dynasty, which begins two centuries before the Era. In America we find it between

The Pueblo around 1,300 AD.

In Bolivia, in excavations that we carried out under the direction of the German archaeological mission, in 1960, with Dr. Hermann Trimborn

and H. Múller-Beck, we found in Mizque, Cocha-bamba, about forty pieces of glazed ceramics, some only on the inside, others on both sides; They were crude little saucers, one, at least, on a tripod. These fragments appeared from the oldest level, with painted ceramics (that is, corresponding to the times of Christ or shortly before), and continued until the Tiahuanac conquest of the region, including the Sauces, Tupuraya cultures. , Mojo-coya and Nazcoide. At the same time, there is a

HITTITE MONOLITH MANUFACTURING WORKSHOP, SIMILAR TO THE ONE ON EASTER ISLAND. According to U. Ba
fig. 154. Located in Yesemek, 22 km. SE of Islahiye, Syria. General view taken from
millennium BC It can be Hittite or Hurrian with Hittite influence. There are human statues
general similarity of this workshop with the other existing on Easter Island, where
human have a general appearance that relates them to those of Tiahuanaco and Pucara, and even

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HANDS IN A PHOENICIAN TEMPLE. The Holy of Holies from a 13th century Canaanite sanctuary Prof. Yadin in
1955. There are a series of stelae and a seated statue, but the most important
hands raised in prayer. In Mesoamerica there are, from the Olmec level, sets of stelae
representations of hands in prayer, one of them truly wonderful that we give ap
Temple crusades in Kotosh, Peru, are perhaps an older form of the same. There is u

of the Argentine NO. According to Donald Harden, The Phoenicians, plate. 29.

external, black glazed paint, which had lasted until the Spanish conquest and extended to NW Argentina and the Chancay culture of Peru.

We now briefly discuss some ceramic forms. Tripod plates appear in Mexico from the first Pre-classical level, and have been compared with Chinese forms, but much earlier they appear on the coasts of Ecuador, both with tripod and tetra-pod forms. Dr. Alcina Franch has published an important monograph on tripods in the world, especially in America, and we had already gathered American materials on the case. There is one form that interests us: highly specialized ring-shaped tripod feet appear at Tépé Sialk, Persia, and all along the coasts of the eastern Mediterranean, even as far as Troy, from before 2,000 BC. c.

In America they are abundant in Panama, Ecuador, etc.

There is a special form of tripod and tetrapod jug, which appears at Tépé Sialk, apparently from 1,300 BC. C., of evident metallic copy for presenting vertical bolts on its

body; With the same shape and bullones it appears in the Sauces culture of Bolivia in times close to Christ. Naturally, this form does not exist in China.

There is another form of jug, which is important and of which we only know one example from earlier Asia, made known by Schaeffer and coming from Syria; Its antiquity dates back approximately to the beginning of the second millennium BC. C. That jug presents a human figure modeled on its front part, opposite the handle; That is the basic shape, but it varies a lot: sometimes the human figure becomes smaller, most of them enlarge and even merge with the vessel, or carry it on the back, etc.; In our culture this shape is preserved in some bibe-lots. In Africa, especially on the coasts of Guinea, it is made of wood. In America it appears since the Upper Preclassic in Mesoamerica, Ecuador and the northern coast of Peru, in addition to appearing sporadically in the Amazon, Venezuela and Colombia. A variant specialized is that of the human figure carrying the vessel, transformed into a fountain, on its head. It appears first in Cyprus; in metal, it spread throughout Europe with religious reasons;

“RAFAS” ON A TIAHUANACO STYLE PHOENICIAN WALL. Staircase attached to the western wall of the p exterior of the northern entrance to Motya, Sicily, probably 6th century BC Interest e those that appear in a more monumental form in the ruins of Ancient Tiahuanaco, and the same s Phoenicians also made walls of regular blocks with padding, which is considered

According to Donald Harden, The Phoenicians, plate. 14.

In Africa, it is copied in wood, and in America it is found in stone and clay. Typical is the representation of the old God of Fire, the oldest god represented in Mesoamerica. It reaches N.
Argentine O., in stone.

Rhyton vessels are very important. It is assumed that they originated from cattle horns used for drinking; Later they were made of metal, later passing their shape to ceramics and even stone. His principal characteristic

SCULPTURES FROM SYRIA WITH OLMECOID FEATURES. According to U. Bahadir Alkim, Anatolie, volume I, fig. represents three mountain gods. Height 92 cm. End of the 2nd millennium BC Origin hitt author. The resemblance to some Olmec sculptures of Mexico does not need to be commented on.

TIAHUANACOTAS FEATURES IN THE ARCHITECTURE OF URARTU, Anatolia. According to U. Bahadir Alkim, Anato Özgüç. From Altintepe, on the Upper Euphrates. General view of a temple and detail of it statue of a god. All the details that are observed in the general complex of the temple s two details of the monolithic staircase and the incoming steps of the external edges of of the two blocks on the side of the staircase, which also appear in Tiahuanaco.

It is the existence of a small hole at one end, while the whole piece forms an animal and more commonly an animal head, so that said hole is in its mouth. Its oldest forms date back to the third millennium in Asia, they spread in the second to Crete and, in the orientalizing era, they experienced a new great expansion, from Persia to Greece, etc. Many of these later forms already lack said hole.

In America rhytons appear at least at the beginning of the Late Preclassic, both in Mesoamerica and in the Andean region; Most of them lack the hole, but there are some with it; A form of funnel glass with a hole in its lower part can also be classified here, belonging to the Tiahuanaco, Mojocoya and Nazcoid civilizations of Bolivia. The shape of the head of animals, especially deer, is typical and similar to those of the Old World in the heads of rams and bulls. One form of rhytons that seems very old is that of the bird. Others are shaped like a human foot. Another of its forms is very interesting, generally without a hole, from Greece, Etruria, etc. It consists of a fairly tall vessel, with a handle on the back. In the previous part they show a perfectly modeled human face, to the point that, with

Often, it is a true portrait. In Africa they exist in wood, completely reproducing the Greek forms.

In America this form reaches its peak in the ancient world, with the famous huaco-portraits of the northern coast of Peru, which among the Mochicas have become true sculptures, as in Greece. They already appear in Chavín and Monte Alban I in Mexico, but their shapes are crude; in the Upper Pre-classic and later, they are perfected. Naturally, on the northern coast of Peru they adapt to the dominant shape of the vessel with a stirrup-handle neck, but in Nazca, Tiahuanaco, etc., they preserve their original tall-glass shape, with the face on its side. lower, which sometimes passes to the upper. We do not know rhytons from China or Japan.

Another form of ceramic, also an obvious copy of metallic forms, is kernos, a word that seems derived from the word used in Greek to designate horn. They are for religious use, consisting of a central vessel with numerous vessels on the edges. With antecedents in the orientalizing era, they spread from Persia to Phoenicia and Greece, and in the latter place they acquired their greatest development. In America they are impoverished, but there are some typical ones; They reach the Argentine NW, where the rim vessels are represented by a

series of spouts in a vessel, with a larger central mouth. Currently in Bolivia they are manufactured in the pottery town of Huayculi, neighboring Cochabamba; We have two of them, one with a cup-shaped foot; They have six small vessels added to a larger central vessel. They are used in

BEAUTIFUL PLATE WITH PEDESTAL FROM VENEZUELA. According to A. Zucchi, lam. 2. It is a unique piece in Venezuela, but it has its counterparts in Panama and Ecuador. It is covered with a yellowish-white slip and the drawings are red. It corresponds to the Caño del Oso style, established by Cruxent and Rouse. It clearly copies an earlier metallic form, and its most similar forms are found in Crete in the Camares Style.

agrarian ceremonies so that the land is propitious.

The zoomorphic ceramic vessels seem to have their most distant ancestors in the form of stone and perhaps wood that disappeared towards the end of the fourth millennium BC. C. Later they were made of ceramic and metal, receiving the influence of rhytons. In the Old World, the period of greatest expansion occurred in the orientalizing era, in which, due to Phoenician trade, they arrived in Spain for the first time. Currently they are made of wood in various parts of Oceania. Its oldest forms represent birds and mammals.

In America, a real explosion occurs in Tlatilco, Mexico, during the time of the oldest Olmec influence there, already from

late Pre-Classic Ancient, and in numerous cases they become true portraits of the animals represented; There are some in bottle shape, and in that case the neck shows a lip at its base, a copy of metallic welding, despite the fact that no metal was known there. In South America, its great development begins in Vicús-Pabur. The diffusion of this type of vessels in America was very great: in the north, between the Pueblos and the Mississippi, where the copy of metallic welding appears on the bottles (zoomorphic or not); To the south, they reach Chile and NW Argentina and part of the Amazon, Venezuela and the Antilles. In English Columbia, wood copies appear.

day.

We will see vessel shapes composed of several of them. At least since the beginning of the 3rd millennium BC. C., double vessels appear in the Near East and Egypt, often cast into one, but retaining their two original short necks. Then, in the first half of the second millennium, in Cilicia, the Syrian coast and, especially, Cyprus, with shapes that denote a metallic copy, vessels formed by the union of two or more of them appear, reaching in Cyprus There are up to seven vessels united into one, each and every one of them with original metallic shapes.

Other times the combined piece consists only of the superimposition of two vessels; also of two, three or four, united in a single base set at the same level, with a neck each ending in a common set.

Stirrup-handle forms from these regions, we only know two that seem to be so, and at the same time they are the oldest: one from Troy and another from Bulgaria, of Anatolic origin. We don't know any of these ways in China.

In Africa, on the coast of Guinea and among the mumbuttus, there are some vessels formed by the union of three of them, with their three spouts joining into a single common terminal, as in Cyprus. Also among the mumbuttus or mang-betu, from NE Congo, there are, in current use, bottles with stirrup handles exactly the same as those of Chavín. There are three of them in museums in the USA, and JH Rowe has published a work on them, where he tells us that R. Larco Hoyle believed that they were misclassified and

that they were from the Chavín-Cupisnique culture, that he thought the same thing when he saw them for the first time; but Rowe takes advantage of this complete similarity to demonstrate his independent origin.

We reproduce his illustrations, so that, as he himself says, readers can form their own idea about whether or not they may be of independent origin.

In Indonesia we know at least the illustration of a bottle with a stirrup handle, which we reproduce, and then, in the Fiji Islands, they appear with the handle formed by two, three and more tubes, corresponding to as many vessels; In America this corresponds to the Salinar culture, after Chavín, and is rarely found in later times.

In China, of course, not

For us, the whole set had to have its original forms in metal;

A secondary proof is that their ancient forms in America lack paint and are highly polished, imitating the smoothness of metal;

In Cupisnique, they are even covered with a layer of graphite.

In addition, numerous forms of the Chavín stirrup-handle vessels are shaped

THE "CLAY SCENES" IN CRETENSE CIVILIZATION. According to H. Th. Bossert, Alt Kreta. Its T antecedents in others made from wood before, in ancient Egypt. In Cyprus, towards in Crete. This one is from Palaikastro, and the women represented measure 12 to 13 cm. Dong-Son are made of bronze, on sacred drums. In America they appear

in a poorer form, on top of vessels, from the Recuay culture of Peru.

We know that there is no kind of stirrup handle.

Its presence in America is found, first, in the Machalilla culture of Ecuador, from 1,800 BC. C. according to Estrada. Then they are in Tlatilco and Chavín among the Mochicas, etc., and, later, in the north of Colombia, the Argentine NW and among the Pueblo Indians and the Missis-

yeppie. All the oldest forms in America are those of a bottle and, what is fundamental, is that its only terminal neck is normally constituted by a small vessel; With this, it is evident that the set was formed by the primitive total union of two bottles that merged their bodies into one, while its completion was formed by the addition of that small vessel, something that has no precedents. In America.

of relief ornaments that show direct relationships with a metallic embossing.

We return to Africa, the aforementioned mumbuttus vessels are so related to Chavín that they can only be explained by a direct relationship of origin, perhaps existing in Indonesia and not yet discovered, and spread to the two regions treated.

We continue with the Peruvian vessels with double spout and bridge handle. The conical tubular shape of the spikes shows a metallic imitation; In earlier Asia there are similar conical peaks, with a bridge-handle, but they are never double; The bridge handle is also imitation metal, as shown by its flat and long shape. In Indonesia there are true vessels with double conical spouts, which we have seen in several museums in Holland.

In relation to what was discussed above are the whistling vessels, which already appear in the Chorrera culture of Ecuador and which were maintained in the Chimú region until the time of the conquest; They also exist in Mesoamerica, on the coast of Guatemala, around 1,500 BC. C. although its diffusion in that area was not very abundant, unlike in Peru.

In the Old World we only know of one region where they exist, the Syrian coast and Cyprus, around 1,500 BC. C., that is, the same time they appear in America. The shape is different, but in Cyprus it has a double-neck and at its base is the whistle, whose presence is what

it matters. We do not know of whistling vessels in China or Japan.

We summarize now: oil or grease lamps appear on the Ecuadorian coast with shapes related to those of the Aegean, as well as whistles and ocarinas. The bugles, mentioned in the Bible as being made of silver and which appear, in silver and in ceramic copies, on the Peruvian coast, are some straight and others have a turn like a clarion: we believe that there is not much room for discussion. its metallic copy. We will not forget here the wheeled "dogs" of Mesoamerica, which appear in the Upper Preclassic, thereby denying the lack of knowledge of the wheel in America; In at least two cases, these "little dogs" are horses, as seen in one of the samples, due to the existence of a rider and his mount, and, in the other, due to the presence of bridles, which were never applied. to the dogs.

CLAY DANCE SCENE, WESTERN MEXICO.
According to R. Piña Chan, Mesoamerica, fig. 51. The figures have been represented naked, but the wide turban they wear shows that they knew the fabrics well, so it must be ritual nudity. Compare this scene with the women's dance from Crete.

There are also several forms of American ceramics that do not copy metal, but rather glass, which, in turn, had previously copied metal; There is a type of Olmec vase that shows this clearly; also several small bottles with printed figures, in a form that is only found in small Phoenician glass bottles for perfumes, etc.

Eggshell pottery originates from the Cretan civilization, in the time of Cama-

CLAY SCENE FROM WESTERN MEXICO, NAYARIT. According to R. Piña Chan Mesoamerica photo 56. It apparently represents a ball game in the town square, with its spectators.

Compare it with the scenes from Cyprus,

beef; It also exists in Mesoamerica, without knowing its place of manufacture, and sometimes presents, as in Crete, applications of figurines, flowers, snails, etc. This reached China widely.

As for the scenes painted on ceramics, it is evident that they copy mural paintings, which were also first reproduced on vessels of gold and silver, copper, etc. We could go on at length on this topic, starting

I am trying to remember that Rowe already points out the kinship of the Greek figures with fine incision (copy of metallic repousse, although he does not say so) with the corresponding Moche figures. Mesopotamia and Egypt do not present anything similar.

In China yes, but it is late and possibly taken from the peoples of the south. In the West it seems to begin, apart from a first manifestation in Crete and Mycenae, with the orientalizing Phoenician expansion and its sources of gold and silver.

THE Smelting OF COPPER SULFIDES, ETC., IN PRECO-LOMBINE AMERICA

It is generally assumed that American metallurgy is very primitive, barely comparable with the beginnings of the First Bronze Age of the Old World, but it happens that copper sulfides were smelted in America, something that only occurs there in the upper stage of metallurgy of the bronze.

In the monograph by J. Pérez de Barradas: Old and new theories on the origin of pre-Hispanic goldsmithing in Colombia, pp. 313-14, in a commentary on the work of JR Forbes (The Metallurgy in Antiquity, Leiden, 1950), the author tells us about the five-stage classification of metallurgy according to Forbes; We suppress details, in the third stage oxides and carbonates are melted, which constitutes the beginning of true metallurgy, something widely used in America. But we are interested in the fifth phase, and the date of its beginning and place of origin, which is in Egypt:

“Finally, the passage from the previous stages of copper metallurgy to the fifth phase, which is characterized by the smelting of sulphurous minerals, cannot be established due to the lack of analysis. It seems to be in connection with the discovery of the extraction of silver and lead sulfides from the corresponding metals. Forbes gives as initial date in Egypt the time of Tell-el-Amarna. In view of this scheme of the development of copper metallurgy, there can be no doubt that the intentional alloys of gold and copper were not discovered until after the technique of smelting both metals had been mastered. That the history of American metallurgy is not as simple as it appears at first glance is demonstrated by several facts cited by Rivet and Arsandaux (1946). For example; the copper from the staples of the walls of Tiahuanaco; Nine Bolivian objects and twenty-four from Peru, mostly from Machu-Picchu, Cuzco, Rosalina and the Pampaconas River, contain sulfur, which is why they consider that the Indians used copper sulfides as ore. In Esmeraldas (Ecuador) the Indians, according to Bergsóe, only used the native copper that they found, hot and cold, but that they did not know how to melt. In Colombia there is copper in the Muisca area.

Triana has mentioned the use by the Muisca of malachite and copper sulfide from the areas of Vélez and Colima and both he and V. Restrepo mention the mines of Moni-quira. Zerda has cited the abundance of copper nuggets in the Tertiary alluvium of the department of Tolima, Riohacha, Santa Marta and other regions. For our part, we believe that all this news needs to be studied again. In any case, we have seen examples of working with native copper, and of obtaining carbonates and sulfides..."

Several other authors also tell us about the knowledge of the metallurgy of copper sulfides in the Andean region, but we believe it is unnecessary to mention them. The fact that is quite clear is that indigenous metallurgy, from the time of its first appearance in Vicús and Mochica I, about four centuries before the Era (for about five hundred years before, metallurgy existed in Chavín, but hammered, not molten), already knew about the smelting not only of copper oxides and carbonates, but also of sulfides, which apparently appears for the first time in the world in Egypt in the time of Ikunaton, at the beginning of the second half of the second millennium before Christ.

SCULPTURE CERAMICS OF PHAISTOS, Crete, late period. Height 16 cm. Its general appearance has first sculptures of human faces that appear on the North coast of Peru. he breathes them relationship with the Orientalizing period. After Helmuth Th. Bossert, Alt Kreta, Berlin, 1921

ta. What is mainly painted there are mythological scenes, predominating the labors of Hercules (the Canaanite Melkar) and scenes taken from Homeric verses. In Moche ceramics, mythological scenes are also mainly represented, and more than one of them

It seems to represent some of the labors of Hercules.

In America, this type of ceramic painted with scenes has a fairly limited distribution, which has been due to its relative arrival.

Vainly recent. It is in Mesoamerica between

THREE VASE FORMS FROM EARLY ASIA THAT APPEAR IN AMERICA. According to CFA Schaeffer
etc., First, jug with double whistling spout, from Byblos, Lebanon, equal to the ch
different from those that appear in Chorrera, but the presence of the whistling hole relates them
human on his forehead, fig. 81, from Tell Ahmar-Til Barsib (Syria). These vessels
by the Sudan, etc., in Africa, made especially of wood; in America, in ceramics, you
Andean zone, and in them the human figure frequently enlarges until it absorbs the vessel.
feet is found exactly the same in the Sauces culture of Bolivia, in the times of the Era original metallic models, something
undoubted in the latter due to its puffiness.

the Mayans, southern and central Mexico, and reached the Pueblo Indians late in their IV period. In Central America it appears sporadically. On the Peruvian coast it is found from the Mochica territory to Nazca, it enters the mountains to Tiahuanaco, already with the impoverished scenes, and continues like this in the valleys of Bolivia and NW Argentina.

The scene figures are also presented on the plates, so the scene has a ple on one edge of it; Previous plates were drawn with a center; This spread in the orientalizing period through Greece, etc., and in America it appears since the Upper Preclassic, from Mesoamerica to the north of Peru, passing especially through Central America.

Very important are the scenes modeled with clay figurines. Its first antecedents are in wood in Egypt; then in Cyprus, around 2,000 BC. C., we find the representation of a sacred enclosure in the shape of a large plate, with two dozen human figurines inside. The same scenes with figurines appear made in bronze on drums from southern China and Tonkin, and in

sacred boxes from the coast of Guinea, also in bronze. In America, the modeled scenes of western Mexico are famous, which come to represent a town with fifty human figures doing their business.

work and games. With a simpler shape, it is found on the top of some Recuay and Mochicas glasses.

The figures and scenes printed with large seals, generally covering one half of the glass and repeated on the other side, appear on Roman pottery along with the glaze that we have discussed before, the same as in China on the same pottery; On the Peruvian coast it appears fundamentally without glaze.

To conclude the topic of ceramics, we will mention two more facts. The first is that of the glass vessels called diatreta in Greece and Rome; These glasses were covered on the outside by a kind of network of glass threads, supported by other threads half a centimeter from the central glass, all fused into the same whole. They are the finest glass works we know of. In China they were later imitated in porcelain. In Peru, in

THE GLASS VESSELS CALLED DIATRETA IN ROME AND GREECE. First, from the Rémisch-Germanisches "International Directory of Arts," eighth edition, p. 116. Berlin, 1965-1966. The second

Sopena Argentina, Buenos Aires 1946. We have seen several of this,

s very fine glass vessels in museums in Europe. As you can see, they are

covered with a kind of glass lattice, a little more than half a centimeter away. jointly. They are the finest glass works we know of. In China they were later in ceramics, partially in Recuay, Chancay, etc., and complete in. an inca aríbalo

TYPE OF CHANCAY CUP WITH DOUBLE WALL, IMITATION OF GLASS. The existence of the double wall in the upper part of the piece is clearly seen, which is an imitation of glass vessels from the Ancient Mediterranean, the same as the Inca piece that we present attached, etc. Height 9 cm. From the Husura Valley. According to S.

K. Lothrop and Joy Mahler: A Chancay-Stile Grave at Zapallan, Peru, plate Ill.

ceramics; partially in Recuay, then in Chancay and finally until the Inca era.

The second fact is that there is, at least, a small place in America, where a type of ceramic sculptures is presented whose style is incredibly ancient Mediterranean type, especially from Cyprus in the orientalizing era. It is a culture developed on the northern coast of Ecuador and that penetrates a little into Colombia; It is called Tolita in Ecuador and Tumaco in Colombia. We refer to the illustrations; They are pieces that would not be out of place in a collection of Mediterranean pieces immediately prior to the Classic period.

Furthermore, proceeding to a careful comparison of the figures from La Tolita-Tumaco with others from the neighboring regions of Colombia and Ecuador, it is noted that many copy them, but impoverish them considerably. In Mesoamerica there are also some similar pieces, especially in Remojadas, but they do not form a homogeneous group like the one mentioned. We know at least one of these

ceramics that establish the transition to the Moche modeled faces, something that we consider fundamental to establish the origin of that people.

INCA ARIBALO WHO COPIES A GLASS TECHNIQUE. The internal pitcher is, as can be seen, covered by another layer of ceramic in a reticulated shape, like a basketwork wrapper with a separation of half a centimeter between the two.

Some Recuay ceramics present the same but only partially, as a detail. Similar pieces were only made of glass in Europe, in Roman times, and they were copied very later in China in porcelain. According to Jorge Saavedra Mendez: Graphic Encyclopedia of Ceramics, volume II, fig. 236. Centurion Editions. Buenos Aires, 1947.

Dr. José Luis Molinari Collection, Buenos Aires.

3.—Proto-metallurgy and full foundry metallurgy in America, already with bronze in its first origin.

We call proto-metallurgy the use of metals with hammer work, without melting.

tion; Naturally, it has to be natural gold and copper in an almost pure state to be able to be worked like this. It appears in America in three different regions: Chavín, English Columbia and the NE of the United States. In the first region gold is worked; in the others, native copper.

Starting with the last region mentioned, we have there, especially in the States of Wisconsin, Minnesota, etc., an ancient pre-agricultural culture called Ancient Copper, which worked the native copper abundant in the region as has been said. An antiquity is given up to 4,000 BC. C., in its beginning, but its true development is later. We will now study only two features that appear in it: the copper spearheads, and the double axes copied in stone. The first ones have

two forms, some have a “rat tail”-shaped end for hafting, and the others are for tubular hafting, even with a hole at the base to nail them to the handle; both forms correspond to types of copper and bronze cast in the Near East; the first is typical of the Early Bronze Age, the next of the Middle Bronze Age. It is impossible to even postulate a convergent invention for that, since the second form required in the Old World more than a thousand years of foundry metallurgy to be able to achieve it.

They are also found there copied on foot.

dra (we do not know if there are any made of copper), the double axes, with double edges and with tubular handles. They were for religious use, since they are made with soft stones, unsuitable for practical use; Subsequently, they spread widely to Mississippi1. To avoid the problem they are called banner stones (Ban-ner-stone), and are not considered axes.

Its form appears in gold and bronze in Syria and

neighboring regions, reaching its peak in Crete as a sacred symbol, in the second Bronze Age. Can this also be considered a convergence? On the coasts of Columbia and neighboring areas, the

EXPANSIVE TIAHUANACO “RHYTON” GLASS. Found in Cochabamba and belonging to a collection smuggled to France). It corresponds to the cultural era called Tiahuanaco Expan It represents a deer's head, with its horns, etc. Its shape corresponds immediately usually in metal. Similar forms have been found in Peru since before the Era, and

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existence of a hammer copper industry - the first European to arrive there, describes the

do, but it is assumed to be very recent, including the possession of metal utensils and even the Development after European discovery of non-European type iron knives of the region, forgetting that Captain Cook, whom he believes were obtained by trade with

He ————a——_—_—_—_—— _—_ ——_———_—_

FALCONRY IN PRE-COLOMBIAN AMERICA

No recent author cites the existence of hunting with birds of prey in pre-Columbian America, but the fact of its undoubted existence is cited by several chroniclers, both for Mexico and Peru. Let's see:

F. Lopez de Gomara: Conquest of Mexico:

“Bird house for hunting. He has another house with very elaborate rooms and chambers, which they call a bird house, not because there are more in them than in the other, but because there are larger ones, or because, being for hunting and prey, they consider them to be better and more nobles. ...all sorts and breeds of birds of prey; ...many other birds were there that the Spanish did not know; but they told them that they were all very good at hunting, and this was shown by them in their countenance, waist, nails and prey that they had.” Garcilaso, although for a later time, tells us about the same thing in Peru:

"...I was in that field two or three times with other boys who were my grammar school classmates, who went hunting with the little falcons of that land that our Indian hunters raised for us" (page 773).

The underlines are ours. The result of considering the existence of falconry in pre-Columbian America shows us that the aristocratic class was much more developed than is assumed. For the Old World, the oldest news we have obtained about it dates back to the end of the Assyrian Empire.

PERSIAN RHYTON VASE. According to R. Ghirshman, Persia, pl. 395. Ziwiye Treasure. Shows a head
from Tehran. This piece is ceramic, but the originals were in gold or silver. Both in M
They find rhytons from the Upper Preclassic. On the Peruvian coast there are numerous people immediately
related, coming from the Expansive Tiahuanaco of Cochabamba.

INCAICO RITUAL WITH AGUJERO IN THE MOUTH. Colección Yosnitaro Amano, Lima. Ceramic combinando
pitcher; you can clearly see in the photo the typical hole of the Greek rhytons, pers
Rhythons appear on the Peruvian coast and Mesoamerica about 500 years BC, with very varied shapes.

The old world. We do not know of its existence in China. Furthermore, let us remember that the rhytons, in
of cattle horns to drink, and that those animals did not exist in America.

na or Japan. He even obtained a stone dagger, copied from metal, which he reproduced in a drawing and which we have personally seen in a museum in Vienna, if it is not another similar one. Also in the region there are stone axes with a quadrangular section, copied from cast copper or bronze forms. Metal daggers are abundant, especially in copper, and some are of undoubted Siberian origin due to the pre-

We move on to the proto-metallurgy of Chavín. Its earliest antiquity is not established, but it exceeds at least 800 BC. C. We already know that for at least a thousand years before, there have been stone copies of bronze axes there, in Wayrajirka, but the metals do not appear at that time; They appear in the middle of Chavín, on the indicated date, with the hammer work of native gold to make jewelry and vessels; these last

METALLIC COPY Cypriot Pottery. From around 1500 BC These vessels, and many others of them, are of metallic
copy, as can be seen, among other features, by the shape of the handles, their similar ones in the Salinar culture
of Peru and in the Fiji Islands, although their spout it's different

presence of antennas in them. Andre Le Gourhan, in his work Archéologie du Pacifice Nord, He treats them extensively and we reproduce some of his illustrations. Other forms of daggers are of oceanic origin, due to the presence of a human figure on their handle. Typical of the region are the so-called coppers, rectangular copper plates like a shield and with various ornaments; They were used as currency of maximum value; Its shape is reminiscent of the copper talents of the ancient Mediterranean.

with highly developed embossing. We reproduce several illustrations. The first thing you notice when you see these jewels, among which there are complex shapes, openwork, nose rings, pins, clips, ear cuffs, etc., is that it is a highly developed metallurgy, which in no other part of the world. world appears without being cast.

We are more interested in gold vessels and plates; There are vessels in the shape of embossed cylindrical vessels, and also a kind of "plates" that are pectoral, since they have two holes.

to hang them; They are like a kind of deep soup plate, but some of them have a curved bottom, others are flatter; The edges are embossed and its motifs are Assyrian.

We had one of them in our hands, with a completely curved bottom; In minutes we realized that it was a ustorial mirror, the chipana, that Garcilaso speaks of, which was used to light the sacred fire during the festivals of the Sun. The concentration of the light rays is perfect.

We do not know the time of the first appearance of ustorial mirrors in the Old World, but in the orientalizing era they are in Egypt, Phoenicia, Greece and Rome. The century comes to China

VI a. C., that is, in the period after its appearance in Chavín. In Rome they were introduced, from Etruria, in the reign of Numa Pompilius, who reigned from 714 to 671 before the Era and

They were used to light the sacred fire in the temples of the goddess Vesta. In China they had the same use.

The Olmecs lacked metallurgy and are considered a Neolithic people, but it happens that they also had their ustorial mirrors, made in the same way, with iron pyrite, and several of them have been found; They are also represented in some sculptures as concave pectorals. Let us remember that at this time, in the Old World there were

CERAMIC LAMP FROM THE MOCHICA CULTURE. According to Yoshitaro Amano, Pre-Columbian Huacos of the It is frankly similar to that of the oil lamps of the Ancient Mediterranean. On the coast

simple, a span of length.

We are in the Iron Age, and the Olmecs are considered Neolithic. If someone talked about ustorial mirrors in the Old World in the

PITCHERS WITH CHAVIN TYPE HANDLE-STIRROP IN AFRICA CURRENT. The authors of these pieces are current Mangbe or Mumbuttus, from NE Congo. The first piece is in The Brooklyn Museum, the second in the Robert H. Lowie Museum of Anthropology, Berkeley. At the Brooklyn Museum, according to JH Rowe, there are 4 other similar bottles, one of them with three joined peaks as occurs in the Salinar ceramics of Peru. The discoverer of the relationship with Chavín was Dr. R. Larco Hoyle, who believed that the piece was Peruvian and misclassified. Ro we naturally supposes a convergent invention. THE BROO-KLYN MUSEUM. LOWIE MUSEUM OF ANTHROPOLOGY, UMI-VERSITY OF CALIFORNIA, BERKELEY.

Neolithic, he would be considered a madman, but with respect to America that is accepted without discussion.

These Chavín mirror plates were, evidently, annoying from the beginning, and for that reason they were attributed to the much later culture of the Chimú. More “annoying” were

still some jugs with golden stirrup handles

hammered, with its various parts cold-welded by pressure. In the Handbook of South American Indians, volume 2, Plate 50, you can see one of them, along with a jug and one of said “plates.” The Chavín-shaped jug, due to its embossed ornaments, corresponds without possible discussion to the Recuay culture, immediately after the Chavín; but in the text it is said that these pieces correspond to the Chimú culture, more than fifteen hundred years after the Chavín. Obviously, their highly developed forms were annoying, and efforts had to be made to make them more recent.

The shape of the aforementioned pitcher, made of gold, immediately offers us the probable explanation

that similar Chavín ceramic jugs are direct copies of similar gold pieces, and this explanation is accentuated by the fact that numerous Chavín jugs have projections that imitate embossing of gold pieces; This has not been found archaeologically, but the metal pieces from Uruk have not appeared either and only their ceramic copies are preserved. They were simply melted down later, in both regions, to take advantage of the material.

We also present a stele from Chavín, where a human being with a feline mask and wings appears; On its forehead it has an ornament, of which only half can be seen because the figure is on its side; It consists of an elongated oval shape.

CYCLADIC KERNOS VASE FROM THE Ill MILLENNIUM BC From: Arte/Rama, Encyclopedia of the Arts, fasc. 3, p. 45. These are the oldest kernos that we know of, and they consist of a central piece surrounded by a series of small vessels that communicate with small tubes with the central piece. Religious use to present offerings to the gods. In modern-day Bolivia, similar pieces are used in agricultural rituals and are sold in the markets of Cochabamba and Oruro. We present a photo of it.

gives, ending at its ends in a double spiral, with a hole slightly before those spirals. Next to it we reproduce a Persian belt, from the 9th-8th century BC. C., with the same spiral ending and the hole mentioned, and there is also an ornament from the Hallstatt culture, with the same double spiral ending. The three objects are from the same period. The Chavín piece may have been made of hammered gold, but it undoubtedly copies a form of casting.

It is clear, we believe, that the hammer-work metallurgy that reached America, in the three places mentioned, was not the pre-metallurgy of ancient Asia, but a form marginally preserved from foundry metallurgy (as preserved today in jewelry), and that the degree of its development corresponds to the full Bronze Age and even the Iron Age.

We move on to American foundry metallurgy. As we have already talked about it, we will not expand on the subject.

Foundry metallurgy began in the Early Asia, possibly mid-5th century millennium BC C. To increase the temperature of the fire, tubes or blowtorches were first used, which worked thanks to human effort. Later the leather bellows was invented; In Mesopotamia, natural wind was also used on windy summits and slopes, a technique that reached

Ceramic bottle with handle from the North coast of Peru, reddish, with a dance scene involving numerous characters and made in printed form with a seal. The comparison of this with the Ancient Mediterranean is important, where the same thing began shortly before the Era, about two centuries. Height 195 mm. Museum of Prehistory and Archeology, National University of Tucumán. N2 4,395.

the Incas at the same time that it was used, at least, from the beginning of the Lambayeque culture.

The shape of these wind furnaces, among the Incas, was like a small blast furnace, full of holes; In today's Africa, similar ways are used to melt iron, but without holes, since bellows are used. In the Far East, bellows made from ceramic and wooden boxes and tubes were used. We assume that some form of leather or ceramic bellows was used in the Andean area, since there are several ceramics that seem to represent a highly developed bellows, and we have already said that we found remains of it. In Mesoamerica only blowpipes were used, and there are paintings that represent it.

The Inca wind furnaces were called huayrachina; There were also smaller furnaces to refine the already molten metal, called tocochimpo. We have seen huayrachinas

in current use. We present an illustration of both types of ovens, taken from the old work of Father Barba.

Moving on to the techniques, we have that of lost wax, already known in Sumeria, and which was used throughout nuclear America from Mexico to NW Argentina. The granules follow, also of Sumerian origin, spread in the Eastern era throughout the Mediterranean and used on the coasts of Ecuador and Peru. Welding with metal fusion, which according to Woolley, appears in Egypt in 1,350 BC. C., while telling us that in Anatolia it had to be earlier (Woolley, page 659); We have had in our hands a tumi (semi-lunar knife) of Inca bronze, with the handle welded in this way to the blade. We have already spoken about the possibility of the existence of Hellenistic electric batteries in America, so we will not insist. Other techniques of foundry metallurgy, their moulds, etc.,

BOTTLE WITH THREE PEAKS OF CYPRUS WITH RECUAY DETAILS. According to V. Karageorghis, Chypre, pl. decorated with incised motifs. Height 44 cm. From Ancient Bronze. Copy a previous form of welds at the base of the necks. Compare the shape of these necks with those of the cer

They are already addressed in our list of responses to Rowe.

The true metallurgy, foundry, appears on the coasts of Ecuador and northern Peru at a date that today is around 400 BC. A couple of centuries later it arrives in Colombia. The remains found and dated already show that metallurgy in full expansion, so its first arrival on the continent has to be dated about two centuries before, and without a doubt it first touched the Ecuadorian coasts, but gold metallurgy was especially developed there to jewels, and weapons of copper and bronze are scarce; is undoubtedly missing

metal copy, but thick, relatively coarse compared to the Mochica I. In western Mexico there is a similar ceramic.

lar, with many modeled forms and innumerable human figures of warriors, women, etc.; The warriors carry stone weapons that have been found, especially mace heads and stone axes; Due to their shape, they are immediately related (in reality, they are the same) with those that appear in Vicús made of copper and bronze; The same thing happens in Costa Rica. It is evident that the same culture arrived in both regions as in Vicús, but among the emigrants no metallurgists arrived. urgent

EROTIC SANTA VASE, Recuay culture. According to R. Larco Hoyle, Checan. Original in the Museum four tubes of this piece immediately reminds one of a Cyprus jug, from the time of the fact that in the Cypriot piece the tubes are together only indicates a variant d

pieces have a protruding tubular peak on the side.

It was the first point of arrival of the smelters of copper and bronze weapons.

That metallurgy drifted south, to Piura, fully developing in Vicús-Pabur, and Mochica I. We are interested in the following: the ceramics that accompany the metallurgy of Vicús are abundant in modeled forms, largely

an intensive cultural comparison between the three aforementioned regions. Derivations from Vicús metallurgy arrived in the Argentine NW, and their stone copies are found especially in the Candelaria and Cóndorhuasi cultures.

In Mochica I, however, ceramics were already

It has a peak of development, even with the Greek feature of the fine incised line (copy of metal) to mark the figures, which Rowe tells us about. At the same time, it is evident that it took Chavín ceramic forms, especially the pitchers with stirrup handles and their finish.

on a protruding edge, a feature that characterizes Mochica I and part of II. The peak with a projecting edge also characterizes Chorrera, from Ecuador. This tells us that the Mochica 1, originally, should not have had jugs with stirrup handles, but rather abundant modeled forms.

RECENT INDONE STIRUP VESSEL. SIA. Presented here are six recent Indonesian vessels which is a clear vessel or pitcher with a handle-stirrup, although its part is covered by older American types, Chavín, etc., and the same with the African forms, it is manifest

Special exhibition Indonesia, etc.,

very perfect, which were cast or added to the jugs with a stirrup handle. To comparatively find out the origin of this ceramic, we must ignore the shape of the jugs on which these figures sit.

We are always told that foundry metallurgy arrived very late to the Mesoamerican region, from Ecuador and Peru, via Central America, towards the end of the first millennium of the Era. It is curious, but at the same time it points out the existence of copper bells that would have come from Mexico among the Pueblo Indians, a century before their existence in central Mexico. We have already seen that the Olmecs must have known metallurgy before their arrival on the continent, but they lost it due to the lack of a metal smelter.

Furthermore, the chroniclers speak of the existence of metallurgy in Mexico among the Toltecs, since the 8th century after the Era. The main metallurgists in this region were the Mixtecs, according to the chroniclers; We would rather say that a guild of metallurgists infiltrated among the Mixtecs, coming from the south, and identified with them and with their language, which they had learned; In Mexico City they occupied a special neighborhood. In proof of the southern, Ecuadorian origin, there is the fact of the use among the Mixtecs, Zapotecs, etc., of very thin flat copper axes unsuitable for use as tools, which were used as currency. These copper axes with that shape exist in America only in Ecuador (somewhat in the north of Peru) and in the aforementioned part of Mexico, and there are archaeological sites where hundreds of specimens have been found.

In the Old World we only know the same form, also used as currency, in central India and Bengal, since the 8th century, at least, before Christ. In prehistoric Europe, axes were also used as currency, but they were of a different shape.

We already know Heine-Geldern's interpretation of the origin of Peruvian metallurgy, which he believes comes from the invasion of shepherds on China and from there spread throughout the south of the country until reaching Dong-son, etc., while -after we send it to the Far East through the sea route of South Asia. The best demonstration of our thesis can be do with axes; Axes with large fins of Egyptian origin arrive in Peru, with shapes copied in stone, a thousand years before the appearance of the first Chavín proto-metallurgy, and that shape does not exist in China. Then, with Vicús metallurgy, the

METAL SMETER AMONG THE AZTECS, according to B. de Sahagún, taken from DT Easby. The temperature necessary to reach the degree of melting of the metals used was obtained, as can be seen, by means of a blowtorch, as in the most ancient Sumeria, Egypt, etc.

INCAIC FOUNDRY FURNACES. Illustrations from the work of Father Barba, from 1640. In the Quichua language, the three above are called huairachina; We have seen type C in current use in the province of Cinti, Chuquisaca, although in more of a cone shape narrowed upwards, and full of holes so that the wind (huaira) acts as a bellows; It is used to smelt silver ores. The shapes at the bottom of the illustration, called tocochimpo, are for refining already molten metal. In the Old World similar furnaces for smelting metals are typical of the Iron Age.

tubular hafting axes, with shapes that do not exist in China or Egypt but do exist in Elam and the Mediterranean coast to the Caucasus; They have various ornaments, such as a hook on the upper part (which reaches to the Argentine NW), a feline face on the front, etc. Metal puzzles also appear, abundantly copied in stone, whose star-shaped origin would be in Persia and which in Vicús-Pabur come to have the shape of metal gear wheels, impossible to have originated in shapes of puzzles: cogwheels and gears have been copied, possibly sold by merchants and later reproduced for military purposes.

Also the torcs, which exist in metal in Vicús and in Colombia, as well as in English Columbia; Its representation appears in clay figurines from Pre-classical Mexico although there they should not have been made of metal.

These torcs have been at the Son-romsen site, in Indochina, since before the first millennium of the Era, and they do not appear in China or in the steppes of the Eurasian pastoralists. The South Asian path prevails contrary to what Heine-Geldern maintains.

Regarding bells, tweezers, architectural staples or keys, the metal ends of clubs, etc.; We have already talked something and we cannot go any further.

In the bells and other jewelry, the lost wax imitation of a metal chain appears, and these chains did not exist in America; Its shape copies those of some Phoenician jewelry. Another important feature is the gold gloves for mummies, used in Lambayeque. They are something unique. We know of nothing similar in the Old World, but the gloves themselves appear to be of Persian origin.

With respect to metal weapons in America, it is difficult to understand how they did not have a much greater diffusion on our continent. Its main use is found in Vicús and Mochica I, in the form of axes, puzzles and copper and bronze spearheads; the latter reached the Inca era. However, the metal swords are missing, so it is evident that no specialized gunsmith arrived in America. We have only seen one metal dagger, broken, in the Gold Museum in Lima. On the other hand, imitations of bronze swords and even iron sabers are abundant in wood, and there are at least two bronze swords (we assume that they were already copied in wood) represented in bas-reliefs of statues from Nicaragua and Costa Delicious. In Hua's drawings

RARE VESSEL FROM THE RECUAY CULTURE, according to C. Wiener, Pérou et Bolivie, p. 624. In its upper part a family is represented, with a man, and a woman with a child.
The base of the piece is important, which seems to represent a double bellows, something that is not supposed to have existed in pre-Columbian America.

SPEARHEADS OF ANCIENT COPPER CULTURE

USA. After DL Schroeder and KC Ruhl Metallurgical, etc., fig. 1. This metallurgy occurs in the NE of the United States in a time before the appearance of agriculture and the knowledge of ceramics, at the same time that it is worked exclusively by hammer, taking advantage of the very pure native copper common in the area of Los Grandes. Lakes. This hammer metallurgy is always presented as coming from a local development, without any relation to true foundry metallurgy, but here we see that its forms correspond to the foundry metallurgy of the Middle Bronze Age of the Old World; the shape of a spearhead with a spike, corresponds to the Bronze Age | In the Old World, the others, and especially the last one, which even has a central soul, already correspond to the cast forms of the Middle Bronze.

STARS -Q

GOLD BRACELET FROM THE SECOND CITY OF TROY. Natural size. Schlieman's finding. Mus Wagner de Kertesz, Universal History of Jewelry, p. 90. Its decoration in buttons and is

by the Phoenicians. Attached we present another gold bracelet from

man Poma, you can see the representation of wooden swords whose shape is clearly a copy of the bronze ones. The Aztec macuauitl itself looks like a wooden sword that has lost its tip. In stone, there are some examples of daggers (even swords) copied from metal ones; Impoverished forms are abundant in the Antilles.

In Teotihuacán, and reaching Guatema-la, in Kaminaljuyu, there are some tripod ceramic vessels with lids (we found one with a lid in Bolivia), which Heine-Geldern has compared with similar bronze forms from China of the first Han dynasty. The similarity is undoubted, but what the cited author does not say is that these forms existed in Etruria, in bronze, for several centuries before (the same as in a drawing of a Greek vase) and that, consequently,

from Lambayeque, with the same decorative motifs. Convergence?

te, had to get to China from there. And where did it come to America from? From China or from Etruria, via Indonesia, before arriving in China?

If there were as many relationships between the metallurgy of pre-Columbian America with Persia and the Mediterranean as we postulate, we can be asked: how come metal objects brought from the Old World by merchants do not appear in America? and, vice versa, some American objects brought back by merchants should also appear in the Old World.

Our answer is that both things exist, but efforts have always been made to hide it.
There is a Roman head from the 2nd century AD, found in an intact Mexican tomb from the 8th or 9th century AD; then the chroniclers, especially during the conquest of Venice

GOLD BRACELET FROM PERU LIKE ANOTHER FROM TROY. From: Catalogue: The Gold of Peru, fig. 413

Late Chimú, but his style is clearly earlier Lambayeque

ra its fusion with the Chimú. It is made up of four lines of squares

set and decorated with double spiral filigree; turquoises set at the ends

similar decorations from Troy next door.

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BRONZE AXES FROM THE ATACAMENA REGION. According to R. Latcham, Archeology of the Atacam region
of the axes, with their upper hook, is typical of the Argentine NW, and are possibly pi

enmangamiento tubular.

zuela, they frequently tell us about the discovery of Roman coins among the indigenous people. In Mexico, an indigenous work necklace made with 200 Roman coins appeared; It is in the Chicago Museum, but it was not taken into consideration and the following explanation was offered: some Spanish soldier found, before coming to America, a "cover" of Roman coins that he brought to America and that he exchanged to some Indian. -gena, who made that necklace with them.

In the Gold Museum, in Lima, in the room of copper and bronze objects, we have seen about twenty objects that, for us, could not have been made in America, but rather brought by the transpacific route; among them, two bronze axes whose shape is only found in extra-Mediterranean Europe in the Bronze Age, as well as some silver nails, of a non-American type, etc.

There is more to American objects in the Old World than meets the eye. The clearest case is the following: in 1861, the famous writer Ernest Renán was sent by the French government on an archaeological mission to Phenicia, where he carried out numerous excavations and acquired ancient pieces. In 1864 he published a work: Mission en Phénicie, where the pieces obtained are reproduced. Among the reproduced pieces (not

We do not know if they were excavated or bought) there are two gold statuettes, coming from Adloun, and considered completely Phoenician.
In 1885 the Histoire de l'art, by Perrot and Chipiez, was published, where these pieces are reproduced as Phoenician.

In 1954, Dr. Henri Lehmann published a small article with two illustrations that reproduce those pieces, and which we offer to our readers; It is titled Comment des objets changent de provenance; There these pieces are examined and recognized as being of absolutely American origin, which cannot be doubted.

To the first of these pieces, Lehmann assigns a Colombian chichaha origin, and to the second

Second, for its style, an origin in Costa Rica or Panama.

But the author, a supporter of the parallelism of inventions, had to somehow get rid of those pieces, and he does so in the following way:

“Let us return to the question posed at the beginning of our study; What were objects that, according to all appearances, are of Colombian origin doing in Syria? The answer is relatively simple. Colombia, like many countries in Latin America and Africa, attracts large numbers of Assyrians and Lebanese,

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PHOENICIANS BRONZE AXES. According to Dimitri Baramki: Phenicia and the Phoenicians. Beirut, 1961. Above, bronze ax from 2500 BC; in the middle, bronze axes from the Middle Bronze Age, 1900-1600 BC; below, bronze ax from the Late Bronze Age, from 1600 to 1200 BC It is clear that there is no continuous evolution here, but rather external influences that bring new forms. The last of them is of interest, provided with a hook at the top, something that appears in the same way in numerous bronze axes from Northwestern Argentina, Northern Chile, etc., frequently with the same tubular hafting system. These hooked axes only exist in Phoenicia and the Andean zone.

merchants par excellence. These are not afraid to settle even in the smallest towns.
They generally take over trade, especially textiles. Known almost everywhere as merchants, they are given various objects, fruits of some accidental discovery. Some of these merchants, enriched in the course of their lives, have returned to their native country to spend the rest of their days there. Nothing more natural that they should have carried wealth whose

Transportation did not present difficulties.

A similar case, on the other hand, occurred a few years ago. M. Manuel Chediak, one of the best-known merchants of San-ta Marta, had a particular fondness for archaeology; He is mentioned by M. Mason as one of the great collectors of the

EXTRAORDINARY BRONZE AX FROM BOLIVIA. Without provenance, Tiahuanaco? Collection by Colonel F. Diez de Medina, published in Archaeological Museums, etc. Its toothed jaw shape is unique to what we know. The presence of small rear fins and two holes to help tie it to the handle indicates that it belongs to an ancient cultural level, from the first diffusion of bronze to the South, so it must correspond approximately to the times of the Era.

region. He returned to Lebanon with what remained of his collection, which he later sold to Seyry; He recently donated it to the Musée de l'Homme" (Ob. cit., page 130).

Things don't seem clear to us. Firstly: when did the emigration of Syrian-Lebanese individuals to America begin? As far as we know, many years after 1861, since that region was then under Muslim Turkish rule, and it was not easy to leave there, much less obtain entry into America. Furthermore, for these pieces, or their possessors, to have lost the notion of their origin and could be sold as local origin, a few years must have passed, which would easily take us to the beginning of the last century, and then no emigrant from Turkey could hope to reach Spanish America, since the Inquisition would have awaited him.

Perhaps it is an illusion of ours, but we believe that an investigation in the current museums of Lebanon, Syria and Israel would lead to the

AXES-CURRENCY OF ECUADOR. According to Olaf Holm, Money Axes from Ecuador, in “Folk”, vol. 8-9, measurements 102x90 mm.; aberrant shapes, measurements 186x80 mm.; giant shape: 42x40 cm., use of coin-axes is recorded in the Mediterranean islands, France, etc., with hal shapes are different; in India they appear around the 7th century or VINA.C. with similar shapes especially among the Zapotecs and, as in Ecuador, thousands of e according to the cited author, around 500 BC, and they were used until the time of the conquest.

rition of other pieces of pre-Columbian American origin, arrived there and preserved for two or three millennia, the same as in Persia.

4.—Some social facts, kings, nobility and

its distinctive features; gentlemen Aguila and.

Tiger; Book of the Dead and other knowledge.

On this topic there are countless features of relationship, but we can only deal with a few. Let's start with the urban organization which, by the way, is not “neolithic”. In America there were true cities already in the Middle Pre-classical, although this has been denied calling them “ceremonial centers.” Chavín, for example, was a true city, the same as Monte Albán.

Together, and already before, with the urban organization, the kings appear, certainly not of priestly origin as is often claimed, which does not mean that they did not have religious functions. Their primitive forms are found in America, for example, in the SE United States, the Antilles, Venezuela, etc., but they are generally called caciques. The name that would really correspond to them would be the old Castilian word régulo, wren, tribal king.

We will deal with the fully developed kingdoms, Mexico and Peru. The attributes of these kings are the same throughout the world: the throne, the litters or litters (they are “taboo” and cannot step on the ground), the parasol, the scepter, the mantle, usually purple in color, the heraldic animals that accompany it, which

BRONZE AND IRON DARKS FROM THE FAR EAST.

According to A. Leroi-Gourhan, Archéologie du Pacifice Nord. fig. 442: from Dong-Son, Indochina, Hanoi Museum. bronze: broken blade, with a human figure as a handle. Fig. 443: from the Dayak of Borneo, recent, bronze, also with a human figure. Fig. 444: from the island of Formosa, recent, bronze, with a human figure and an ornament or large openwork headdress in its upper part. Fig. 445: from Java, around the 15th century, in iron, Museum of Man in Paris, the same with a human figure. We consider that these daggers are related to the large tumis of Lambaye-que, almost always with a human figure on the top, and also frequently with openwork decorations similar to those of the Formosan dagger. See also the Peruvian broken dagger, with a little deer on top.

They are commonly felines or eagle-hawks, the royal seal (Moctezuma had it), etc. It is impossible, of course, that these attributes, if they had been invented independently, would have coincided with those of other kings.

We will deal with some of these attributes in an already developed era. There is a magnificent Mycenaean gold scepter, from around 1,000 BC. C.,

LAMBAYEQUE COPPER DAILY, WHICH HAS LOST THE TIP. According to Einrich Ubbelonde-Doering: Kunst im Reiche der Inca. Verlag Erdst Wasmuth Tubingen, 1952; p. 229. There are several copies that are variants of the same type. The shape of the handle with a human figure, shows by comparison with Indonesia, etc., that they are a copy of bronze daggers that have lost the tip. There are magnificent examples of gold and silver, even of large size, in which the tip degenerated further, becoming a tumi blade, a crescent, or similar axe.

found in Cyprus, crowned by a sphere that evidently represents the world (as we know well for later times) and topped by two falcons; We reproduce it along with illustrations of a Paracas cloak, prior to the Era, where characters appear carrying scepters with two falcons on top. Convergence in such a specialized invention and with the same purpose?

Then the parasol; The most ancient Egyptians used large fans as royal insignia, and it is possible that the parasol was a later improvement of the same. The oldest parasols that we know of appear among the Assyrians, as a royal insignia, and from there they spread throughout the Old World, reaching the coast of Guinea, where they are in current use, Indochina, China, etc. In America they appear and the same does the fan in Mesoamerica, in all regions with developed State culture, from Mexico to Peru, and also in the Antilles,

etc.

The palanquins, litters or litters, must have already existed in the times of the first kings; Consequently, they are already present in the small primitive tribal kingdoms, such as those of Hispaniola where Columbus found them. Just like the thrones; The oldest throne in the known world is that of a sculpture of an Anatolian mother-goddess, from 5,000 BC. C., which has a feline on each side; The same appears in Mesopotamia, but in Egypt they are soon replaced by two falcons or even vultures. In the American thrones that we know, feline figures dominate and their type is rather Hindu, especially among the Mayans; but there is another ancient form that appears in the Antilles, Venezuela and Colombia, in the form of an armchair with three or four legs and a backrest; An identical form exists in the culture of the Cyclades, in the first Bronze Age.

In the ancient Mediterranean, there was a time when an aristocratic social revolution occurred against the previous kings. His first news comes from Ionia; Then the same thing happened in Phenicia, it spread to Greece and Rome. All of these countries were transformed

They existed in aristocratic republics, governed by two consuls in Rome, two suffets (judges or leaders) in Phenicia and Carthage, etc., accompanied in command by an aristocratic Senate that controlled them. This system of government reached Indonesia, where there is some news reported by the first discoverers, and America, where we can mention the government and the Senate of Tlaxcala.

Let's discuss another point below.

The guilds of craftsmen, merchants, builders

shipwrights, architects, ceramists, weavers, metalworkers, etc., must have existed from the very beginning of urban civilization, but their first news comes to us from Assyria. Totalitarian states always sought to manage or destroy them, as happened with the merchants among the Incas. The main ones of these guilds in ancient times must have been those of merchants, metallurgists and builders, in architecture and ships. In America, the only guild that is normally recognized by colleagues is that of merchants, pochteca, from Mexico; In the other regions, they are generally confused with the “secret societies” of men, which generally look like guilds that have acquired a religious aspect, but which retain the ranks of masters, initiates and apprentices.

In the urban social organization, the existence of the nobility is very important. At first it seems to have been made up of the descendants of the original divine kings (up to the third generation in Columbia, Siam, etc.); Of them two fundamental groups seem to have formed early, responding to cosmogonic ideas of social organization. These groups later constituted the corporations (we will call them that) of warriors and priests, both with religious functions. The first identified themselves with the ceremonies of the night and winter, as well as with the felines; the second

ANCIENT OPENING GALA AXES
EGYPT, SIMILAR TO OTHERS FROM
LAMBAYEQUE. According to Schéfer and Andrae, Art of the
Ancient East, p. 436, top.
National Museums, Berlin. They measure,
respectively, 8 cm., 10.2 cm., 10 cm., and 47 em. The first of copper,
the others of bronze.
Similar openwork axes with figures of felines, etc., were recently used in
Dahomey.
In the Lambayeque culture of Peru, similar openwork
shapes are found, with human and animal figures, generally made of
copper. In Mexico they appear copied in stone.

two with day, light and summer, and with birds of prey, especially falcons,
eagles and vultures. In other words: they are the

STONE SEAT AND STATUE OF ECUADOR. According to Saville, taken from Krickeberg. The stone seat comes from Cerro Jaboncillo, and appears to be a throne (there are several dozen of them) sitting on a human figure at four feet; In today's Africa there are wooden thrones made in the same way. The statue or monolith comes from Cerro de Hojas, near the coast in Ecuador, and has an obvious resemblance to the Tiahuanaco monoliths of the Classic period. These statues appear to be prior to those of Tiahuanaco, which would seem to be derived from them.

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A PERUAN CERAMIC AND METAL OBJECTS. Of Peruvian Art, Juan Larrea Collection. Schemes

a ceramic cup with large handles, metal copy, similar to Greek forms, etc.; then a pectoral; an openwork copper ax

small fins and three posterior holes, Egyptian type; another pectoral: a bronze ax
a knife with a handle in the shape of a human figure. The figs. 2, 3 and 4, Lambayeque style.

Knights Tiger and Knights Eagle of Mesoa-america.

Since the first origin of civilizations, representations of both Orders of Chivalry have appeared, which they are in reality, but their total specialization as military orders does not.

It occurs until the beginning of Assyria and the Hittites. There they reach a development that spreads widely; but Assyrian and Hittite figures are usually minimized, calling the Tiger Knights representations of “demons,” and the Eagle Knights “winged geniuses.”

the. Their current survival in black Africa are the “Leopard-Men”. The primitive royalty is linked to the Tiger Knights, as we can see from their thrones, but in Egypt the Eagle Knights obtained primacy in an early period, just as happened later - in India with the triumph of the Brahmins over the Tchatria. or warrior caste.

In America, these orders of chivalry already appear in the Olmec and Chavín civilizations, with abundant representations in sculptures and especially in bas-reliefs. Later they spread widely, and appear painted on

the Moche ceramics, Tiahuanacos, etc. In the Popol Vuh the Tiger Knights appear in the same way that the Leopard Men acted until recently in Africa, that is, murdering individuals from neighboring tribes at night.

who did not want to submit to the centralization advocated by the Quiché kings. In the Old World, Hercules, covered in a lion's skin, is a good example of what Knights were like.

ros Tigre, “Lion” in this case. In the fight of Hercules against Geryon, king of Tartessos, Hercules appears in the paintings of Greek vases as the Lion Knight and Geryon as the Knight.

BEAUTIFUL GOLD FUNERAL MASK FROM THE QUIMBAYAS, Valle del Cauca, Colombia. These mask first in Egypt and Mycenae; In America they are found throughout the Andean zone to the NW

They made of jade. We do not know of its existence in metal in China.

A REASON THAT IS IN PERSIA, EUROPE AND CHAVIN. According to R. Ghirshman, Persia, pl. 22. Waist siglos IX-VIII AC Colec. particular, Teherán. Its shape is represented in a line era.

Eagle. We do not know of the existence of these orders of chivalry in China; They may have existed, but they must have been dissolved later.

It is interesting to discuss the main distinctive feature of the nobility in pre-Columbian America. Appears around 1,500 BC. C. in Chorrera, and shortly after (and even contemporaneously), in the archaic statuettes of Mexico, among the Olmecs and in Chavín. It spreads throughout all the high American cultures, and reaches English Columbia, Mississippi and Florida, the Antilles, Venezuela and isolated parts of the Amazon, even the Chaco. Naturally, it was the typical ornament of the Inca nobility, and in the Quichua language it is called pacu.

This is a shaped ear ornament. a flattened reel, with which the lobe of the same is enlarged to even exceed ten centimeters. It already existed in Elam and ancient Mesopotamia, but then it was very small, according to the illustrations that remain; When it passed to more primitive peoples, as always happens, it enlarged to about 10 cm, something that could have happened in Indonesia or Eritrea. The truth is that the oldest enlarged form that we know appears in Mycenae, in a kind of gold pectoral of Egyptian origin, which represents the god Bes, and which carries them of large size.

ño, around 1,600 BC. C., that is, shortly before

its first appearance in America. It is possible that it is an influence from Southeast Asia, since similar ornaments appear in Som-ronsen, we do not know from what date, perhaps from 1,800 BC. C. Then, in a slightly smaller size, they appear in Egypt from the beginning of the Recent Empire, around 1,500 BC. C., and they are worn by all the pharaohs of the Rhamses dynasty. Somewhat later they appear in Hittite sculptures. They enter Africa, we do not know when, evidently through Eritrea and reach the Nok culture in Nigeria, and are currently in use among the Zulus of South Africa. In India they appear in the oldest known sculptures, which date shortly before the Christian Era. In Burma they were used at least until the last century, and in Borneo they are used today, as well as in other regions of Indonesia. In China we do not know of any representation; In Japan, at least two ceramic figurines from the late Jomón culture, from a few centuries before Christ and of obvious Indonesian influence, present them, in large size.

In the ancient Mediterranean there is another period in which they appear abundantly and of large size: it is the orientalizing period, which shows that this cultural period, in its origin, is related not only to Urartu,

as is generally believed, but also with the Phoenician navigation towards India and Indonesia.
Representations of these ear ornaments appear in stone and ceramic sculptures from Cyprus, Greece and Etruria, and pieces have also been found archaeologically. Its use is short-lived.

In America its diffusion is very great, as we have said, and its representations number in the thousands, as do the specimens found. Then, in Mesoamerica, we find later variants, and especially forms of earrings with a typically Assyrian shaped pendant.

Naturally, along with the aforementioned orders of knights, there are their respective weapons, the first of which is the breastplate. Its oldest form is in ancient Asia and consisted of a cover. complete of the body, possibly made of wool, even with screens

lones; Its main use was that stone-tipped arrows did not penetrate it and the blows of a mace had little effect on the person carrying it. It seems to us that Sargon I of Accad invented the arrow with a metal tip, which pierced those armor, and thanks to this his soldiers defeated the Sumerians; but these primitive padded cuirasses became widely distributed; They were used in interior Sudan last century, and they also reached America, where they are found from NW Argentina (represented in engravings of Draconian ceramics) to Mesoamerica. In Tiahuanaco they are represented on the monoliths. Its Aztec name (deformed) is found in all dictionaries: escaupil. They consisted of cotton padding, including pants.

Generally, if not always, we are presented with the Spanish conquistadors wearing the steel breastplates of Europe of that time.

CHAVIN STELE WITH AN IRON AGE ORNAMENT. In R. Ravienes, 100 years of art
combination of Tiger Knight for the feline mask, but at the same time he has the wings of the
half, has an oval ornament ending in two spirals and a small hole shortly before
Compare this ornament with those in the accompanying illustrations, from Persia and Hallstatt, from the E
hammered copper.

GOLD SCEPTER OF MYCENIC ORIGIN FOUND IN CYPRUS, WITH SIMILAR SCEPTERS IN PARACAS. According to V. Karageorghis, Chypre, pl. 89. Although found in Cyprus, it is recognized as having a Mycenaean origin; gold with enameled inlays; coming from Kourion; height 16.5 cm. 11th century BC It shows two eagles or falcons on a globe, which would seem to be that of the World.

Compare it with the scepters of a Paracas fabric, with birds with two heads, which we see next to it.

time, but the truth is that they abandoned them from the first moment and adopted the Mexican escaupiles, which were practically invulnerable to all the weapons that the natives had, since they did not have arrows with metal tips that could have penetrated them.

They would have had no difficulty in melting them, but it did not occur to them, since the conquest was too rapid. The Spanish also built escaupiles for their horses. The escau-pil for a man weighed only seven kilos, and not much more than that of a horse. The steel armor for a man weighed thirty to forty kilos and those of his horse much more. The Spanish weapons, starting with the sword, the steel darts of the crossbows, etc., crossed all the indigenous escaupiles. The greatest Spanish conquest expedition was that of Don Pedro de Mendoza to the Río de la

Silver; Since they came directly from Spain, they did not know the escaupil and brought steel armor. The primitive local indigenous people easily faced the Spanish armored knights: a good shot from a boleadora threw the horse and the knight to the ground, the weight of the armor prevented the rider from getting up easily and the indigenous finished him off.

With wool armor discarded, in ancient Asia, rigid metal armor was made and, much later, those with interlocking rings and those with movable scales, on a base of leather or fabric, that is, the lórigas.

Metal plate armor reached various places in America: to British Columbia, where it was copied on wooden slats; to western Mexico, where they are represented in numerous clay figurines (there they appear to be a leather cylinder); to the Peruvian coast, especially among the Mochicas, where they were made of both wooden plates and metal rods intertwined with cotton. Its representation is abundant in Moche paintings.

We move on to helmets and shields. Metal or leather helmets, even with cheek guards, which are late in the Old World, appear in some Olmec representations; and a little later, on clay figures, there are representations of helmets with the typical decoration of Greece and Anatolia. Among the Mochi-cas, however, a superior crescent-shaped ornament appears, more similar to those of Anatolia, Persia and especially Assyria.

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As for shields, in Mesoamerica and the Andean area they existed in both square and round shapes; in probable relationship of origin with the Tiger Knights (square) and

PARAUAS < TELLO

SCEPTERS WITH THE DOUBLE-HEADED EAGLE IN THE PARACAS CIVILIZATION. According to Julio C. Tello, Paracas, L
ending at the top in double-headed eagles, a motif of Hittite origin copied by the civilization
Peruvian from Paracas, prior to the Era, and in the same fabric there are a dozen more figures. Compare this with the Mycenaean scepter
found in Cyprus, which we present in a separate illustration
above and compare the total figures with the Kachinas of the Pueblo Indians.

Eagle (round); They were later confused and used interchangeably. In the Old World square shields are very rare; We know a few from Persia, but there are many curved quadrangulars, widely used by the Romans; They also appear in western Mexico. A detail that in the Old World we only know in archaic Greece consists of a leather pendant at the bottom of the shield: it appears among the Toltecs, the Mochicas and the Incas. There is another specialized configuration of shields, elongated and curved upwards, although not exactly the same in shape, in the world it only appears among the Toltecs of Yucatan and in the Khmer civilization of Cambodia.

We return briefly to the decorations. Nose rings, or nasal rings, seem to have their origin in the Indus civilization, but their diffusion

Later people were undoubtedly the Phoenicians; In Africa they entered through the area of Eri-trea and Somalia; In Melanesia, lacking metal, they were copied in shell. They are missing in China and Japan. In America they are found in English Columbia and then, from Mexico to NW Argentina, the Antilles, Venezuela, etc. Naturally, they locally acquired multiple differentiated forms, sometimes very large, such as

in Colombia, the Nazcas, etc., as well as in Sumatra. A specialized Phoenician form is the one that reproduces a small torque, with additions around it; The same exists in Colombia and in Vicús. In Olmec bas-reliefs simple rings appear on the nose.

Two other forms of ornaments: the double bezote or tembeta, on the sides of the lips, which in the Old World we only know from a representation from Borneo and another from the Chukches of Siberia. In America they appear among the Eskimos of Alaska, the Olmecs, the Quimbayas of Colombia, in Ecuador and reach Argentina with the Cóndorhuasi culture. Then the large botoque embedded in the lower lip, the same as women with saucer mouths in Africa; In America they are not so large, but they do not differ much, as will be seen in an illustration about the Suyá of Brazil; It also appears in English Columbia, among the Toto-Nacas and Aztecs, among the Chimú, etc., and also spread among some primitive tribes in Brazil, such as the aforementioned Suyá and, naturally, the Botocudos.

Another issue is the decimal classification of the population among the Incas. It has sometimes been compared with the similar classification of

PARACAS FABRIC WITH REPRESENTATION OF DOUBLE-HEAD EAGLES, set and one unit. Taken Altamerikanische Kunst Mexico-Peru, Abb. 100. Double-headed eagles are, as far as is known
14th century BC, and soon the image was taken by the Mycenaeans. The relationship seems to be a Mycenaean scepter that we present and three figures from a Paracas textile with scepters that resemble

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THE DOUBLE-HEADED EAGLE AMONG THE HITTITE. Beautiful Hittite bas-relief from Euyuk, showing a
by adaptation of a similar Egyptian figure provided with a single head on one side; for this important sign that arrived in pre-Columbian America at least in the middle of the last

From: Reclus, Man and the Earth, volume II, page. 32.

Roman armies, but it is much more widespread in the Old World and even appears in the Bible; Its origin is probably Assyrian from where it passed to the Persian armies, China and the Mongols, who strictly maintained it.

We now continue with the last point regarding social life: death. We could go into great detail about tombs, mummies and cremation of the dead, as well as about Charon's obolus represented on the Peruvian coast by a small copper disc and in Mesoamerica by a green stone. But we will limit ourselves to dealing with a single fact.

We are referring to the Book of the Dead, which we believe no one will doubt is of Egyptian origin, during the Old Empire. An impoverished form of it is used today in Tibet.

Another, also impoverished, was used in Mexico:

“And then the old elders and paper cutting officers cut and dressed and tied the papers of their trade, for the deceased.

and after having made and prepared the papers, they took the deceased and pulled up his legs and dressed him with the papers and tied him up; ...and more they gave to the deceased all the papers that were prepared, placing them orderly before him, saying: See here that you have to pass through two mountain ranges that are meeting one another; And they gave the deceased other papers, saying: Here you see how you have to cross the road where a snake is guarding the road. And they gave other papers saying: You see here how you have to go to where the green lizard is, which is called xochitónal; And they said to the deceased: You see here that you have to cross eight wastelands; And they gave other papers saying: You see here how you have to cross eight hills; And more they said to the deceased: You see here with what you have to pass the wind of knives, which is called itzehe-cayan, because the wind was so strong that it carried the stones and pieces of knives.

“...and they made a round hole and found out

They died, and they did this in the burial of the nobles as well as the lowly people... And more say that while the lords and nobles were dying they put a green stone called chalchihuitl in their mouths, in the into the mouths of the lower people, they put a stone that was not so precious, and of little value, which is called texoxoctli or razor stone, because they say that they put it in the heart of the deceased..." (Sahagún, Historia General, etc. ., volume I, pp. 284-285).

If we read carefully what has been mentioned, we see that the author does not tell us that the papers were painted, but he does not say anything against it either, and from the whole it is clear that at least some drawings or successive numbers must have been there, and even more so in the noble dead; Its relationship with the Egyptian Book of the Dead seems undoubted. Also in the last part of the quote, the existence of Caron's 6bolus is very clear.

the.

We leave many other things, which try to we will discuss more extensively in the volume following this work; For example, the fabrics and clothing, such as the poncho, the ajsu or .acsu, the uncu, what the Spanish called “t-shirt” in Peru, which is of Assyrian origin; the Greek peplos, which Rowe tells us was preserved the same in Peru; the embroidery on those dresses, the filing of the teeth, etc.

In the latter there is a variant that we will see briefly.

This is a dental inlay, made with wires and gold plates and finally with precious stones. It appears on the coasts of Ecuador and Mexico in the middle of the last millennium before the Era; in Indonesia it is still in current use; That seems to originate from the pre-Chinese civilizations of southern China. We reproduce some magnificent illustrations, of teeth embedded with precious stones, from pre-Columbian Mexico and modern-day Indonesia. The same existed in Ecuador.

The Incas are usually represented today with good hair, but the chroniclers tell us that the Mexican market had an abundance of barberos; But they did not shave beards and mustaches, but rather heads.

The Incas are usually represented with a good mane of hair, but the chroniclers always tell us that all the Inca nobility were characterized by being shaved, that is, with their heads shaved. Something similar happens with the stories of the Arabian Nights, where there are many references to barbers and their razors, but shaving the beard of an Arab of that time would have

It has been a crime deserving of a grave punishment.

go. What those barbers shaved was the heads of their clients; That is of Sumerian origin and passed to Egypt. The Egyptians shaved their heads and then put on a wig. We offer an illustration of some copper and silver razors from Ecuador, identical to those ancient from Greece and Persia, with a spiral handle.

That said, it would seem that in America there should not be many representations of men with beards, but this is not the case: since the Middle Preclassic period there have been many representations of men with abundant beards and mustaches, of a fully European type, not Mongolian. and, at the same time, with a large aquiline nose, not Mongolian either, but rather typical of the peoples of the northern part of Asia, evidencing that an important human migration with that origin took place then. Later-

THE BIRD WITH TWO HEADS IN SANTIAGO DEL ESTERO.

Hustracion of OL Righetti, Two Conferences, etc., fig. 29. The idea of an eagle figure with two heads is of Hittite origin, around the 14th century BC. In America it is found in English Columbia, in Mexico in the pre-Late Classic, on the Peruvian coast and in NW Argentina. with survivals even in the Santamariana culture.

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Mind you, the representations of individuals with beards decrease in number, undoubtedly due to mixing with local women, but some remain, and the chroniclers refer to them numerous times. Furthermore, it was preserved in religion: the

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The god Quetzalcoatl of Mexico is always represented with a beard. Representations of individuals with beards and mustaches in America appear in Columbia, especially in Mesoamerica, as well as on the Peruvian coast.

AMERICAN FEATURE ON A GREEK SHIELD. We should speak the other way around: Greek feature in shields
It is a rare exception. This is the lower hanging part of the shield, with an eye painted
We have only seen this feature in two or three Greek figures and one from Persia (we do not say P
Mesoamerica. From a vase representing a fighting giant, tomb 313, tomb of the

tome 32, table 90

In America there were few animals with horns, apart from deer and buffalo, which were too far north of civilizations for their antlers to have spread as ornament; The type of antlers of rams and goats was not known.

However, there is a representation of both types of horns in Mesoamerica. We present some illustrations; one corresponds to one of the rare wooden sculptures that are preserved from Mayan art, and in it appear magnificent ram horns; another is Olmec.

They are ram horns like those that were painted referring to Moses and Alexander the Great, as well as to Amun, in Egypt, corresponding to the symbol of Law and Justice. Also

There is a vessel from the same Mayan region, with clear goat horns like those of the god Pan. How can we explain this?

The figure of the double-headed eagle is very important; It seems to be of Hittite origin, from around the 14th century BC. C. Its later diffusion in Europe seems to be due to the fact that the crusaders saw its representation in the Hittite ruins and the copy-rum, thus becoming the representative sign of the Austrian dynasty. It arrived in America in the Upper Preclassic, it appears in Mexico on an earflap from the Ticomán period, reproduced by Covarrubias; then in Paracas,

OLMEC JADE MASKS FOR SALE. According
to Drucker and Squier.
Excavations at La Venta, Tabasco.
All of them present a double tembetá in the corners of the lips, in the same way they appear in the ceramic sculptures of the Céndorhuasi culture of Argentina. The same is worn among the Eskimos of Alaska and in the Philippines, but it is a relatively rare ornament in the world. Later Mesoamerican cultures do not present it, but they are in Colombia and Ecuador.

Nazca, Santiago del Estero and Catamarca in Argentina, and recently, in English Columbia. We don't know her in China. This is a clear invention, since nothing similar exists in Nature, so convergence cannot occur there. As for griffins, sphinxes and other mythical animals, their representations are abundant in America; There can be no convergence in this either.

Something that has never been supposed to exist in America is the stills for the distillation of liquors and perfumes; They are generally assumed to be of Arab origin because of their name, but

Aristotle talks about them, so that the

They just had to perfect them in some detail. Many chroniclers, including Columbus, when talking about Central America, tell us that the indigenous people distilled their drinks and, although they never describe their procedures, the use of that word means knowledge of the stills. But there is better evidence: we present an illustration, not very well done, of a small alembic in a vessel from the northern coast of Peru, published by C. Wiener in his work Pérou et Bolivie; Given its small size, it had to be used for the manufacture of perfumes. We also show a recent Mexican illustration, showing a primitive form of alembic, now older and for drinks.

Finally, we are going to deal with the science of alchemy, the predecessor of our chemistry. It appears in the Old World a few centuries before Christ, as a secret science of initiated individuals. The fundamental idea of alchemy was the transmutation of metals, something denied by chemistry, but the order of the day in current physics. Its first origins are in Mesopotamia at an undetermined date, but around the 3rd century BC. C., it spread through Egypt, Greece and even China, in such a way that it became the only true science.

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Postulating its existence in pre-Columbian America would be considered absolutely impossible by any self-respecting researcher.
The reports that exist on the subject are few and vague, and few of them refer to the Andean zone; But about Mexico at the time of the conquest we have undoubtable reports that come from the highly respected chronicler Fray Bernardino de Sahagún. This author even tells us the names of some secret alchemical products, which were sold in the Mexican market and which were designated by names.

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GOLD PECTORAL FROM MYCENAS WITH “EARS”. This piece, from the treasure found by S
many times, but we have never seen the presence of the orejones noted in it,
Inca and all the American nobility, etc. Its origin, according to its style, is Egyptian, and it represents
It dates back to around 1600 BC and is the oldest representation of an ear.
It is not of Egyptian origin, and must have arrived there from India or Indonesia.

RHAMSES II WITH EARRINGS AND HELMET MADE FROM A TURTLE SHELL. The dried apricots are small
of the Rhamses in Egypt, not existing there before. At the same time they appear among the hits

a relationship with the Far East and Africa.

men in disguise, exactly as happened in the Old World; Naturally, for this the use of the typical distillation of alchemy was essential.

As in the cited author's reports that bring this color, they used alum for others. After having ground and dissolved the tlalxocotl or aluminous earth in water, they cooked it over the fire in clay vessels; They then extracted the pure white and diaphanous alum by distillation, and before it finished

We are somewhat scattered, we will quote another who copies most of it. We are referring to Francisco Javier Clavijero, in his work Historia Antigua de México who, in very specific quotes, tells us:

"...As they used the nitro to remove it from hardening, they divided it into pieces to sell it on the market..." (Ob. cit., page 316).

"... The most common oils among them were ule or elastic resin, tlapatl or castor oil, pepper or chili oil,

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AN INCA OREJON FROM ANCIENT GREECE. Disc shape, obverse and reverse, the f
perhaps something previous; era of maritime relations with Indonesia, which introduce that in Gr
"CMM". According to M. Wagner de Kertesz, Historia Universal de las Joyas. pg. 165. In the evening you

represented in Greek and Etruscan sculptures of the Orientalizing period, shortly after

AN AMERICAN ORIED IN ETRURIA. Disc-shaped, decorated with stylized flowers. Metropolitan Museum, New York, “CMM”. According to M. Wagner de Kertesz, Universal History of Jewelry, p. 186. It would correspond to the Orientalizing era and the first Greek maritime relations with Indonesia.

chia and ocote. They obtained this by distillation and the rest by cooking…”* (Id. page 348).

“... Doctors revered the goddess Tzapotlatonan as protector of their art, whom they believed to be the inventor of various medicinal secrets, and, among others, of the oil they obtained by distilling the ocote tree” (Id., page 353).

We believe we do not need to further expand the information on the existence of knowledge of alchemical science in pre-Columbian America; It is very clear and demonstrated in the quotes made, the existence of distillation, one of its main bases. Whether or not the search for the philosopher's stone existed on our continent is another topic, undoubtedly later in its development.

5.—The ways of writing of the American Indians: seals, quipus and hieroglyphs; its origin in the Old World. Phoenician inscriptions?

We have dedicated a chapter to this topic in our work Indigenous Argentina, so we will be brief.

Firstly, archaeologically, we have in America, from 1,500 BC. C., the existence of seals, which appear in Mesoamerica and in the Chorrera culture of Ecuador; later, they abound in Colombia, etc. In America, as in prehistoric Europe, they were not used as writing seals, but rather as pintaderas, ye IFA Pips

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THE EARS IN JAVA. Sculpture from the 12th or Xill century, Bodhisattva or perfect being according to Buddhism; by Candi Toempang, East Java. It shows an ear ornament in the shape of the Inca pacu. According to M.

Wagner de Kertesz, Universal History of Jewelry, p. 626. The same dried apricots are used today on the island of Bali.

That's what they are called, to paint the body, paint bark or woven fabrics, and to print figures on ceramics. In the aforementioned regions they were still in use at the time of the conquest. Their shapes correspond to three classes: flat, with a round or oval surface, cylindrical or roller, and quadrangular planes. In the Old World the first two forms originate from earlier Asia and pass to Egypt; but there the roller forms were soon abandoned. The seals square

gulars are exclusive to the Indus civilization, and appear in Mexico. There is no doubt that many of them are in the form of drawings with the meaning of writing, at least as merchants' seals.

We move on to the quipus, the knotted ropes of the Incas to keep track of the

Empire in censuses, etc., and that they would also be writing, according to some chroniclers. Their arrival in America must have been quite ancient, since they are found in English Columbia, then in the form of the shell Wampun in the eastern United States. Its use continues in Venezuela, among the Guaraníes, Araucanians, etc. They existed in ancient China, they exist in present-day France, among peasants, to keep their livestock accounts, the same as in Bolivia. In

PRE-JAPANESE FIGURINES FROM LATE JOMON CULTURE. According to I. Komatsu, The Japanese People.
their ears appear two holes, indicating that they wore earrings, as we see in other reg
Bell shape of the base of this figure is related to Crete. Figure 28 is a d
It has real large apricots. Aritos and orejones must have arrived in Japan d
produced the interpacific relations that brought those cultural traits to America I

“Japan, but through the original focus of Indonesia.

EARS CARVED IN MICHOACAN OBSIDIAN. According to R. Piña Chan, Mesoamerica, photo 66. Hem
earmuffs in the National Museum of Mexico; They are incredibly thin and completely transparent.
metal is evident.

Polynesian people were called tipuna, a word that seems to be related to quipu.

We are interested in the Inca quipus. We have seen one found in Africa, about four meters long, with countless knotted hanging threads. Its numerical system has been deciphered for a long time: each thread hanging from the center contains a series of groups of knots, which are counted from bottom to top, until five groups of knots are made. The counting system in the Quichua language is pure decimal, like ours, so that makes things easier. The lowest group of knots means units, the next up means tens, followed by hundreds, thousands and tens of thousands.

The highest numeral in the Quechua language is hunu, which means ten thousand, like the Greek miria.

One detail is important: when a group is missing from that count, say hundreds, the space is left blank, that is, there is no knot in the height corresponding to hundreds, which corresponds exactly to our representation of zero.

According to the chroniclers, there would be quipus that would contain texts with words, not numbers. That

Has refused. But the chroniclers cite the existence of quipus to pray with the Lord's Prayer, etc. and that is used today in Bolivia. We have not been able to study them. That the Ten Commandments can be put on a quipu, with some secondary signs, we understand, but we do not explain the entire Lord's Prayer to ourselves. We move on to the true scriptures; They are more widespread than is believed in America; but they are generally called pictographs.

There are two basic forms of American Hieroglyphic writings. The second is exclusive to the Mayans and ancient Olmecs. The first has a greater diffusion: it was used by many redskin tribes, but they are not considered hieroglyphic writings, but are called pictographs, as we have just said. It was used in Mesoamerica, where the Zapotecs, Mixtecs and Aztecs developed it further, complicating their figures; then it appears in current use among the Cuna Indians of Panama, where Nordenskióld discovered it in 1925, the same as in Bolivia and southern Peru today, which we discovered in 1940. Until the last century it was used in NW Argentina, according to various references.

All these scriptures, except the Mayan one-

DENTAL INCAUSTATIONS AMONG THE MAYANS. Dental inlays in the entier skull
Mayan civilization of the Late Classic period, Maravillas phase. In the central incisor I knew
same side, they are turquoise; The rest of the pieces are made of jadeite. Jointly pr
warns. According to Pierre Agrinier, New cases of dental mutilations coming from Chi
intensely deformed in the erect tabular type. The filing of teeth appears in Mé

lower. The inlay is found in Oaxaca, for the first time, around 600 BC, in M
spread to the Gulf coast (Remojadas), Chiapas and the Mayan zone, in the Classic period
the inlays, almost from the same date mentioned. In Oceania it is used to this day, as you see

present is extraordinary.

Olmec, have a series of common features that unite them into a single original group; Firstly, the dominant fact that the lines of writing continue to continually circle in a zig-zag fashion, what the Greeks called bousthrophedon, which means “the lines made by the ox when plowing.” At the same time, writing appears in a spiral line, starting from the center.

None of the classic hieroglyphic writings of the Old World have any of those two features, the bousthrophedon or the spiral, neither the Mesopotamian, nor the Egyptian, nor the Chinese. On the other hand, the bousthrophedon and sometimes the spiral, is the classic form of the so-called Hittite Hieroglyphic writing, from ancient Anatolia, whose beginning is a little before the second millennium before the Era, and which persists to influence with its bousthrophedon and spirals to the first alphabets of Greece and Etruria. The existence of bousthrop-hedon has also been noted in the ancient writing of the Indus Valley, but in the writing samples on seals that

We have it, we have not been able to verify it.

On Easter Island the bousthrophedon also appears, but with a very specialized form: not only are there zig-zags in the lines, but each line of signs is inverted with respect to the previous one. In the entire world we only know of the existence of such specialization on Easter Island and in two texts of writing that we discovered in Bolivia.

We move on to deal with the last one: it has three different forms, depending on the material on which it is written.
Its current use is limited to writing Catholic prayers, but we have seen a couple of letters

written with it. There are two or three short texts
you see pre-Columbian, not deciphered. The first form is written on leather, stone and paper, and consists of a few hundred figurines about three centimeters in size on average, very naturalistic, and which represent both direct and symbolic and phonetic signs, that is, what characteristic of hieroglyphic writings; the

numerals are stripes and dots; the direct signs are, for example, a human figure with skirt (= woman); the symbolic: a cross (= God); the phonetics are of approximation: the plural in Quichua words is -cuna, which is represented by a grindstone, called cuna or cona, and also conana. This script is used by both Quichua and Aymara speakers. Use the bousthrophedon, starting from the bottom of the page or leather; but now it is frequent to start from above, by influence of our writing.

The second way is surprising: use the

COMPLETE "SOFT" ARMOR FROM THE SUMERIAN PERIOD. Around 3000 BC It was probably made of wool, just as the Mexican escaupiles were made of cotton. The helmet he wears is the same as some thin silver crowns from the Argentine NW.

The belly is also protected by a series of rigid rings, which look metallic but can also be made of leather. Under the left arm a circle, which may be a point to support the spear, which would move with the other arm.

same signs, but modeled like clay dolls and standing on a clay disc. You begin to read, on the discs, always in the center, as in the Faistos Disc.

The size of the clay figurines is about

LIP DISC AND EARS AMONG THE CURRENT TYPES OF BRAZIL. This is a primitive group use of these masculine ornaments and distinctives, which are not commonly known as proper It is typical of the High Cultures, but it has spread widely in the Amazon among indigenous peoples.

Harald Schultz, Ethnographic information about the Suyá Indians, 1960, plancha V. En: “Revis

1961-62.

five centimeters; There are also sticks, pebbles, etc. Instead of a disk, we once saw a quadrangular shape with the figurines in bousthrophedon.

The third form consists of large, thick adobe discs, up to 70 cm. in diameter, on which are embedded, in a spiral, from the center, small stones, slabs, teeth, engraved ceramic pieces, glass fragments, etc.; each one represents a word of Catholic prayers. Father Acosta saw

these discs around 1570, and he describes them in a work from 1590, calling them wheels and already describing their exact current use for prayers.

We move on to Olmec and Mayan writing; Its oldest form appears in Monte Albán around 800 BC. C.; They are brief inscriptions but it is evident that the later classic Mayan writing derived from it. Two stelae from Serro Sechín, on the Peruvian coast, show two columns of human heads that seem to indicate previous knowledge of the same writing, lost.

KNIGHT-EAGLE IN ASSYRIA. The representation of the Eagle-Knights in Assyria is interp
Eagle head", unlike the Lion-Knights, who are considered a "demon
Louvre. Drawing by Saint-Elmer Gautier. Taken from Perrot and Chipiez, Histoire de L'Art dans generally
interpreted as the fertilization of a sacred palm tree, or Arbol del Centro d
There is an incense bag, and the same appears in many Mesoamerican representations.

already, but used his memory as decoration. This writing does not have bousthrophedon or spiral forms, but is read from top to bottom, in generally vertical columns, placed in pairs, that is, two are read together. The writing is only translated in relation to the calendar in the Mayan texts. TO

It seems to us that some texts are read from the bottom up. The numbers are well known, and they are of utmost importance to us as
we will see.

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Some signs, already from Monte Albán, resemble those of Hittite hieroglyphic writing, but we do not want to venture here.

This writing has always been considered hieroglyphic. Father Landa left us an "alpha-beto" of her, which is evidently not real, but then he wrote us a word with those signs and there it is clear that the writing was syllabic, not hieroglyphic, therefore more than other hieroglyphs were added to the syllabic signs. Ade-

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LION-KNIGHTS IN ASSYRIA. They are generally interpreted as "demons", but they exist
leaves no room for doubt about his character. Their eagle feet are noteworthy, which appear in the Hittite sculptures of the same knights, in a period that seems earlier. Q
British. Drawing by Saint-Elme Gautier. Taken from Perrot and Chipiez, Histoire de l'Art dan

REPRESENTATION OF A "TIGER KNIGHT" IN GREECE. Fragment of an Attic cup, signed by
Paris. Diomede and Ulysses confront the Trojan Dolon, in the presence of Athena and Hermes.
previous picture, no longer well understood, since the tiger helmet does not appear but a g helmet
you the complete preservation of the tiger skin, which looks good in the claws of the same
shape exactly the same as the representations of the Aztec "Tiger Knights".

THE TIGER KNIGHTS AND EAGLE KNIGHTS IN THE INCA EMPIRE

There is never talk of the existence of the religious-military orders of the Tiger Knights and Eagle Knights in Inca Peru, and even less so for the civilization of Tiahuanaco, but in the civilization of Tiahuanaco (also among the Mochicas) both orders of Knights are abundantly represented in paintings, ceramic vessels and sculptures. To see that our interpretation of the case is not arbitrary, we have been the first to do so, we present here what Gar-cilaso tells us on the subject, at the Inti-raymi festival:

“Others came no more nor less than they painted Hercules, dressed in the lion's skin and with his head fitted into that of the Indian, because such people pride themselves on descending

of a lion."

“Others came in the way that angels are painted, with large wings of a bird that they call cuntur. They are black and white, and so large that many of the Spaniards have died of fourteen and fifteen feet from tip to tip of the flights, because they boast that they descended and that their origin was a cuntur.” (p. 457).

The oldest representations of both orders of Knights, in what

known to us, they appear among the oldest Assyrians and Hittites, from the 14th century BC. c.

However, we consider that the writings with bousthrophedon discussed above are not primitive, but very impoverished, and that in their first origin they must have been mainly syllabic. As we moved on to more primitive peoples, the signs became more naturalistic and many syllabic signs were lost, but the phoneticism they preserved is clear.

We move on to another extremely important point: the possibility of the existence of Phoenician inscriptions in pre-Columbian America. Since the second half of the last century, efforts have been made to find them both in the United States and in Brazil. Perhaps the most interesting of

They are an inscription made in stone in NE Brazil; nothing is known about her but one copy made on paper in 1872 by a fairly cultured farmer, published shortly afterwards. Critics considered it a forgery, and this is what most current authors believe.

But recently, Prof. Cyrus Gordon maintains that it contains terms and expressions of the Phoenician language that were unknown in 1872, so it could not be a forgery. For us, the form of the translated text

It makes it hard to believe it was. There is no mention of any wonderful discovery of new lands, but rather a story, a plea and a lamentation.

More recently, in Buenos Aires, Prof. Bernardo Graiver had the opportunity to see a collection of distaff weights or torteros (or fusaio-las), from Santiago del Estero in the

AN one

ROCK CARVINGS FROM THE OLMEC CIVILIZATION OF MEXICO. According to M. Covarrubias, Indigenous Art of Above, from Chalcacingo, Morelos; below, first from San Isidro Piedra Parada, Guatemala, and standing figures in the first illustration show masked Eagle Knights, two of which highlight the belt clasps, something that is rarely indicated to exist in America; the The first figure is also provided with a beard, while its position recalls the Tiahuanaco. The existence of Eagle Knights among the Olmecs has never been indicated.

Argentina, which, for the most part, have engravings on their surface. Almost all of these ornaments are very regular and it is evident that they are nothing more than that: ornaments; but others are irregular and linear in shape. Graiver knew the ancient Phoenician and Aramaic letters, and there was a moment when he was surprised to read a word in Hebrew on one of those tor-teros; then he found 'many more. Comparing in detail the letters of the Phoenician alphabet with these readings, the fact seems true. If there were two or three words that appeared written like this, one could believe in fortuitous coincidences, but there are several dozen.

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Our explanation is the following: the torteros or weights have the same shape as writing seals. Most likely, numerous seals with Phoenician writing from merchants remained in America; Their signs must have been in some way considered sacred or, at least, important and were faithfully reproduced. The torteros have the same shape as the round flat seals and those signs were copied on them.

Confirmation of this would have to be sought in the numerous seals and torteros that exist on the Ecuadorian and Peruvian coast; If these signs appear there there would be no difficulty for them to have reached Santiago del Estero, in Argentina.

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EAGLE KNIGHT PAINTED ON A TEOTIHUACAN FRESCO. According to L. Séjourné, Thought and Religion tells us a lot about the "pacifism" of the Teotihuacan culture, but the existence then of Eagle and Tiger, of Assyrian-Hittite origin, sufficiently shows that they should not have been so

bas-reliefs of the Chavín culture.

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TIGER KNIGHT AMONG THE AZTECS. Representation of a Tiger Knight in the Telle Codex Aztec along with that of the Eagle Knights. For some authors it is the representation of

inconvenient that is, that this god was dressed as such a knight.

6.—A reflux of pre-Columbian American culture in Southeast Asia, which reaches widely to Europe and Gothic art.

This issue is extremely serious to deal with, for

which we have to be cautious, but the pru-.

dence will not prevent us from saying what seems obvious to us.

From America, in the Mayan civilization of
Old Empire, around the 6th century after the
It was, there would have been a reflux of the developments of American civilization on Indo-China, providing there a series of cultural features.

rales that were not previously known locally. This has already been pointed out before, especially by the

Dr. Heine-Geldern, but without drawing from it all the consequences that naturally result.

The main fact is the following: the stone pyramids of the Old Mayan Empire have forms immediately comparable in Indochina, in the Champa and Khmer civilizations, especially the very tall or steep forms of Tikal, which appear with very similar structures in IndoChina. At first one would naturally think that Indochinese forms have influenced America, but it happens that the Indochinese forms Indochinese are several centuries later than the American ones. There were pyramids in Indochina and Indonesia long before, but they were made exclusively of adobe.

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KNIGHTS TIGER, EAGLE, FOX, ETC., IN A MOCHICA PAINTING. After Kutscher, 1950. Fig. Handbook of American Archeology, fig. 479. A monarch is carried on a litter and around him

belonging to various orders, as seen by their masks.

For us, as Heine-Geldern suggested, without insisting too much on it, it would be a true reflux of America into Southeast Asia. Beti Meggers tells us, and this has been accepted by several North American researchers, that a single survivor of a fishing boat from the Jomón culture of Japan would have been enough to introduce ceramics to Ecuador. 3,200 years BC. C. We now say something similar: a single master craftsman in architecture from the Old Mayan Empire would have been enough, even if he had been taken as a forced sailor by a pirate merchant, to introduce that knowledge.

Mayan architectural foundations in Indochina. Naturally, this master-architect would necessarily know astronomy to orient his buildings, which was essential then, as well as Mayan writing, at least its numerals and accounts, especially position numerals and zero. Recognized as an architect and protected by some local monarch, a single individual would have been enough to introduce what we advocate in architecture, etc. We clarify that what has been said is nothing more than a possible example, since we rather think the following: if in southern India and Funan, shortly after the Era, as is well known, Greek architects arrived directly to work for the monarchs -local cases, the most logical thing would be that a few centuries later some local monarch of Indochina

he would have directly hired a Mayan architect to work on his buildings. Furthermore, the relationships are numerous and must have lasted several centuries; but the massive introduction of Mayan-type stone architecture was

produced during the 6th century after the Era

Christian.

We will try to see things better by trying to make a reconstruction of the whole process: the stone architecture, of Egyptian origin, as we have said, with a framework of regular stones, and accompanied by a form of palace plans with large patios of later origin, and which has been spread throughout the eastern Mediterranean, Egypt and Assyria, since the second half of the second millennium BC. C., and even more developed at the beginning of the last millennium, it must have spread throughout southern India (Ceylon at least), Indochina-Indonesia, without taking root in these latter places, since adobe architecture must have already been well developed there. wood; This influence then continued through the Pacific to America, where at first it took root very little for the above reason.

Very little remains of that first influence in America, but the bas-relief stelae of Serro Sechín and Monte Albán I are sufficient examples, and their most similar ones in the Old World are the Hittite ones.

We are not aware of any study on the stone architecture of the Dravidian peoples of southern India, prior to the Era. Studies on stone architecture in India begin with the “Aryan” monarch Azoka,

THE “PONCE MONOLITH” OF TIAHUANACO. It is the best preserved of the Tiahuanaco monoliths, found buried. Represents a warrior covered by meso-type cotton armor

automatically due to the presence of the pants. The glass and the scepter that he holds in his hands priestly.

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A “TIGER KNIGHT” WITH A BRONZE AX AND A GRIFFIN, FROM TIAHUANACO. According to W. Bennett, Exca paintings in kerus vessels. The first figure represents a “Tiger Knight”, who has a bronze on the right, while another hanging as an insignia on the chest. The glasses

Classic Tiahuanaco, and it is important that the ax that the warrior has in his hand was only known about at that time, something generally denied. Also: the ax has enm something of which we only know of a bronze example. The second figure, coming from ot

combination of the traits of a bird of prey with a feline.

in the 3rd century BC. C., but, precisely, it begins after Azoka conquered several Dravidian peoples from the south and, especially, the Kalingas on the coasts of the Bay of Bengal.

Since to build regular stone buildings, etc., specialized master craftsmen are needed, and even blue-collar workers who know how to do that work, it is evident that Azoka, after his conquests, had these workers transferred from the conquered towns. so that they would build stone buildings in their States. The Kalinga stone architecture has not been studied, because the archaeological researchers who have worked there were all "cold", and have not sought anything other than the "glory" of their alleged ancestors.

Already before the time of Azoka, the Kalingas and other Dravidian peoples, who were good navigators, must have had maritime relations with Indonesia, where today there are peoples with the name of Kalingas, even in Luzon, in the Philippines; Naturally, today they speak Indonesian languages. Hence the first influences of fully Hindu origin that reached the Olmecs, undoubtedly in stone sculptures, several centuries before the Christian Era. Words of Dravidian origin are found even today in Polynesian, and can be

They may exist among the Mayans or the Mixtec-Zapotecs. The construction of stone buildings does not seem to have taken root then, either in Indonesia or in Mesoamerica. The adobe buildings continued, the same as in the kingdom of Azoka before its conquests, except in Monte Albán and Chavín.

One or two centuries after Christ, the Hindus of Aryan origin began to colonize Indonesia, but their stone architecture did not appear there at first but did appear among the Mayans, among whom it was mixed with their own and local forms. of its previous adobe architecture, and with it the stone cities of the Old Empire developed. Possibly, the different social conditions existing in both regions determined acceptance and rejection; Also, in a special way, a master-architect was able to arrive in America, who formed a school and a guild, even with the typical signs of the master-architects that are preserved in Freemasonry, that is, the compass. and the squad; The fact that in Mesoamerica there was already a lot of stone work, with workers already skilled in its handling, could have facilitated things, while in Indochina-Indonesia it did not take root at that time.

Furthermore, the American stone architecture

cana is not purely of Hindu origin. It is enough to consider the appearance then of polygonal architecture, which is hardly found in Indonesia, although it is more developed on Easter Island. It is not impossible that the Corinthian Greeks influenced that.

But there is more curious news. In the work of M. Hoernes, L'uomo, volume II, page. 65, we find a photograph of a Zapotec palace in Mitla. On the same page, Hoernes comments:

“The grandiose ruins of the civilized peoples of northern America recall in many ways the constructions of the pre-Hellenic civilization in the eastern and southern region of the Mediterranean basin, in Asia Minor and in northern Africa, specifically the Aegean civilization and that Minoicomycenaean civilization on the coast of said sea.”

It is very little, and it is a pity that the author has not expanded more, since the fact is very well laid out. We now turn to another author who also sees this relationship clearly but not with

America, but with Indochina. This is Henry Marchal, in an article unfortunately without illustrations. Almost everything he says is also found among the old Mayans:

"In Cambodia, the plastic, decorative or architectural forms imported from India have been transformed to resemble the forms found on the banks of the Nile, in the Aegean Sea, or in Mesopotamia.

"All the authors who have dedicated themselves to talking about Khmer art have not failed to highlight this

similarity; Among the most typical motifs that reveal these Western influences, we can mention: the beginning of the sanctuary surrounded by successive small squares and fences, and preceded by a triumphal avenue lined with sculptures in bulk, which comes from Egypt; the bas-reliefs that extend over the interior walls of the temple to describe the real or legendary life of the time, and that come from the same country; the winged animals, griffins turned into garudas, so well known in the Mediterranean world, which is

A TIGER KNIGHT IN TIAHUANACO. According to D'Orbigny. In the Pumapuncu area of Tiahuanaco s
These sculptures, made of sandstone, therefore correspond to the Ancient Tiahuanaco.
still there. Its height ranges from half to one meter. They represent a Tiger Knight, as they have an ax in the right hand and a severed head in the left. In the periods

These figures appear painted on the ceramics.

MAGNIFICENT REPRESENTATION OF A "GENTLEMAN" TIGER" OF THE PROV. FROM CATAMARCA. ARGENTINA.

This sculptural piece, belonging to the draconian culture; on the head a feline mask-helmet, shows that its wearer belonged to the

Order of the Tiger Knights, of probable origin

Assyrian and widely spread in pre-Columbian America. It comes from Catamarca and is owned by the sculptor and painter Marita Picot. Buenos Aires.

Colleagues have always interpreted this type of

figures like representations of a witch or shaman,

but true shamans never appear covered in feline skins. Eagle Knights do not exist in this culture.

found both in the Aegean Sea and in

Egypt or Mesopotamia.

“To summarize all this I would give some quotes. Delaporte says in his Voyage au Cambodge, published in 1880, page 339:

“Despite this frequent use of symbolic sculpture, Khmer artists have broken almost from the beginning with Hindu principles, to relate to the Egyptian and Greek aesthetics that they have not been slow to follow entirely, subordinating, as I have said, the genre of decoration to the architectural form, using nothing more than

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peaceful and serene figures, always broad in their conception and capable of contributing to this overall effect, for which they had such lively concern.

“Fournereau points out in his work the Ruines d'Angkor (1890), page 190: “singular phenomenon... Egyptian art and Assyrian art present numerous analogies with that of ancient Cambodia.”

“Finally, to limit myself, Fergusson, in History of Indian and Eastern architecture, vol. II, p. 403, summarizes his chapter on Cambodia as follows: "To the art historian, the amazement is that there are temples with such a surprising combination of styles in such a locality: Indian temples built with pillars almost purely classical in their design, and ornamented with bas-reliefs so strangely Egyptian in character."

“I will not insist, since the verification of these reminiscences has become almost commonplace, and I myself have heard it frequently repeated by visitors.

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STRANGE TOLTEC SHIELDS. Bas-relief of the Chichen Itzá Ball Court, period of the Sun Manuel, etc. Several knights appear here, two of them with strange shapes of shields, cu rare bas-reliefs from the Khmer civilization of Indochina. Also the shape of the ones is interesting, since they have a metallic copy type tip, like harpoons, similar to the

STRANGE FORMS OF SHIELD, SIMILAR TO THE TOLTEC, AMONG THE KHMER OF CAMBODYA. According to the ruin of the Khmer. The god-kings of Angkor loss, in E. Ripoll, Civilizations of
bas-relief corresponds to the time of the Khmer king Javavarmán VII, who reigned from 1181 central warriors with rare and elongated shields with a kind of hook at the top; in the is that of a series of Toltec warriors from Chichén ltzá, Mayan civilization under t

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PHOENICIAN INSCRIPTION IN PRE-COLOMBIAN BRAZIL. It is not known about her, which was recorded in in 1872 by a cultured farmer. Published shortly after, critics considered it a fake. current. But recently Prof. Oyrus Gordon in North America maintains that it Phoenician that were unknown in 1872, so they cannot be falsified. The translation others differ quite a bit in many words.

of Angkor who are aware of artistic issues.

"That is to say, Khmer art would have remained completely foreign to this oceanic civilization that has made its influence felt in South Asia and America."

Central, and that would not have received any trait from this side. I do not believe it; It is not impossible, in fact, by observing it well, to discern certain decorative motifs, certain details or certain architectural forms that are not found in Khmer art.

THE EGYPTIAN PAPYRUS "ROLLS" IN JAPAN AND MESOAMERICA. It is always assumed that in Mesoamerica They were exclusively accordion folded; but here we see that in Japan (the same in China) as in Egypt and the Ancient Mediterranean. Some chroniclers say the same for preserved Mexico. Photo and authorization Museum of Oriental Art. BUENOS AIRES.

"They may have one of the Western origins of which I have just spoken, and which, on the contrary, reveal influences coming from the south and the east and of which I have had the opportunity to find traces in Java and Bali."

MAYAN WRITING, page XXIX of the Trosno Codex. Only the calendrical signs have been translated from this writing, referring to days, months, etc. Only three pre-Columbian Codices are preserved, although a fourth seems to have recently appeared, but there are many stone inscriptions. Mayan writing is completely different from all other American ones, for

The zig-zag or bousthrophedon reading is missing from it, so it must be of a different origin, not yet identified. A large number of its untranslated signs seem to correspond to syllabic, not hieroglyphic, representations.

(Marchal, Henry: Connection between Khmer art and Polynesian and pre-Columbian civilizations).

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TRACING OF THE MOTIFS SCULPTED ON A MAYAN ALTAR IN MIRAFLORES, according to R. Girard, Los Mayas 242. Tracing of G. Grajeda Mena, exhibited at the entrance of the National Museum of Archeology and Storms with his axe, at his side the God of Air with a heavy beard; below a goddess and who is evidently made of stone but whose shape imitates a type of metal club (type "key").
Ecuador and imitated in stone in Chile, etc.

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PINTADERAS OR “STAMPS” OF COLOMBIA. The largest, 11 cm. long. Above, of Quimbay origin
painting figures on the body as on fabrics, sometimes to print on ceramics. Ancient Mesopotamian writing. In Europe these stamps were also used as “paints”.

Colombian Indians.

As we see, the author finds that the main sources of Khmer architecture are in Egypt, Assyria, Mesopotamia and mainly in Greece. It does not indicate any date but the fact of mentioning Assyria, the griffins, etc., automatically establishes the relations with the orientalizing period and the immediately following one. Now, when these features appear in the Khmer civilization, more than a millennium had passed since that time had passed in the Mediterranean. Where had they been preserved? If we remember the quote before Hoernes, the relationship would be even earlier, with Mycenae and Creed.

_ ta. We repeat the same question.

This begins to be found in Monte Albán and the last Olmecs, although stone architecture appears little yet, and develops

It is

then intensively in the Old Mayan Empire, already with a large number of stone constructions. A more simplified or impoverished form of the same appears made in adobe on the Peruvian coast, and then in stone in Pucara, Tiahuanaco, Huari and the later Incas. The latter, in the walls of their buildings, which are smooth, do not have any Hindu influence, but correspond completely to the style of the ancient Mediterranean; let's remember the atticurgas doors.

We assume that the unstudied Dravidian stone architecture could have been the intermediate step of that architecture in its diffusion to America; but later in India, the development of the classical forms of 'Aryan' Hindu architecture

removed that. And so, it does not appear in Indochina-

Indonesia until receiving the ebb influence of America, where it had been preserved.

An important feature of this architecture, of Assyrian-Hittite origin, is the false arch construction of doors and vaults. Another, specifically Hittite-Mycenaean, are the two lions on the sides of the doors, as guardians, which we have already seen exist in Peru. Then there are pyramidal shapes with a staircase

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extends to Indonesia. It has, from the beginning, the false arch and vault and, frequently, the stepped pyramids with four stairs whose Mayan shapes we have already indicated. These elements had already been well developed among the Mayans for two or three centuries, so that this reflux influence seems to be sufficiently proven. Naturally, in Indochina and Indonesia, the previous sculptures of Hindu origin, in wood, etc., recurred.

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SCHEMATIC OF A “QUIPU” AND ITS NUMERICAL TRANSLATION. According to Nordenskiöld, The Calculation of Years e peruviens. The illustration shows the quantities resulting from the figures it contains; more turns, up to nine; The knots below contain ones, the next tens, l tens of thousands. The account is as easy to do as in our number system. kind of zero, consisting of leaving the corresponding parts without knots, as seen in The resulting figures correspond to astronomical figures of the Moon, Venus, Mercury and Jupiter.

on each side, whose Elamite origin we have already indicated. Also another specific feature of Greece and Etruria, with the Inca tranegoidal doors, called aticurgas in classical Greece.

We are especially interested in the false arch and the false vault, so developed by the Mayans. It is not a form prior to the true bow, but rather both developed together in Assyria, as we saw. In photographs of many of the oldest stone buildings in India we see numerous arches, and we believe them to be real, but most of them are built with the false arch technique, according to the descriptions we have.

The regular stone architecture, the stone or stone-lined pyramids, the false arch and the false-vault, appear suddenly in Indochina, between the champa and

Khmer, towards the end of the 6th century CE, or rather at the beginning of the 7th century. Then it

They profusely revealed the forms of Mayan origin.

Some of those features of Mayan origin in Indochina-Indonesia were widely disseminated, and they were not limited only to architecture, as we will soon see.

We will see, to study the most outstanding thing from the beginning, the problem that the false arch presents to us and its development until we reach the trifoliate arch. The trifoliate arch, with three curves, in architecture, is one of the most characteristic features of Gothic art, without it, that art would truly be lame; Now, this trifoliate arch was taken by Gothic art from previous Romanesque art, lengthening it upwards; Romanesque art was taken from the Arabs in Spain, and they from Syria. It came to Syria from India, where it has been found, as far as we know, since the 7th century AD. At the same time it appears in Indochina, although it is not frequent.

HIEROGLYPHIC WRITING IN CURRENT USE IN BOLIVIA. Sheep leather with hieroglyphic writing, currently used in Sampaya, Copacabana peninsula, Bolivia. The signs are written with the juice of the fruits of a plant called ñuñumayu (a nightshade) in Aymara, which remains brownish-sepia in color. In the Aymara language, it is read in a zig-zag pattern from bottom to top, starting at the bottom to the reader's right.

It contains various Catholic prayers, the first of which are the Articles of Faith, the second, after the horizontal broken line, are the 10 Commandments, which begin with a cross and continue with a kind of double-axe (sign: Commandment , Law) ten lines follow which are the numbers, etc.

Author's finding. Archaeological Museum of the Universidad Mayor de San Simón, Cochabamba. The origin of this writing is pre-Columbian, but its adoption to write Catholic prayers has allowed its survival until today.

on the oldest architecture of India are not as extensive as we would like, and there could be older forms of the trifoliate arch, which would have spread early towards Palenque and, on the other hand, later, towards Syria. ; but we necessarily have to explain things with the information we have.

The trait discussed is not the only one that has tremendous importance in Europe. There are several others and, possibly, others that we have not noticed. The main one of them is the sign that means zero.

CURRENT HIEROGLYPHIC WRITING OF THE INDIGENOUS OF BOLIVIA. Original obtained by the author and painted in eight colors. Due to the influence of our writing, people have begun to write bousthrophedon. A kind of inverted double U means the end point. What is written is the sixth line, starting with a cross, the Ten Commandments are presented, relatively their numbers. They occupy two lines.

count; In the Mayan civilization of Palenque it appears fully developed about two centuries before.

The first origin of these trifoliate arches seems to be in niches in the walls, made to place gods, which existed in India before their appearance in America; but its first appearance as a free trifoliate arch in a door is found in Palen-que, made with the false-arch technique; and so it reached Indochina and India; In Syria it was sometimes copied into a true arch, and thus it reached Gothic art.

That is our explanation of the facts. However, we recognize that our knowledge

Numeral signs with position value were already known in ancient Mesopotamia, in their system of counting by sixties; in the

Hellenistic period, a sign of falsity came to be used

tate or absence when intermediate quantities were missing averages, for example: 1° 0' 5”. The zero there is a sign of lack or absence. The Chinese use something similar, we don't know since when; The Olmecs seem to have known the same thing since well before the Era; The Mayans inherited it and all their calendrical accounts are made according to it, but they seem to have progressed, since in the few Mayan codices that remain there are accounts made by putting what would be equivalent to zero minutes without putting the minute sign, and that is already a truth-

zero zero. In the famous Olmecoid sculpture of Tuxtla Gutiérrez we find this manifestation. Also in the quipus, which were used in ancient Mexico, leaving a space without knots in them is equivalent to a true zero, and perhaps this could have influenced the signs of absence, giving them a broader value and causing the appearance of the true zero.

SIMILAR ORNAMENTS IN INDONESIA AND AMERICA.

Indigenous people of the island of Timor, Indonesia, ex-Portuguese, with strange and undoubtedly annoying decorations on their backs, denoting military ranks achieved in war; Completely similar insignia appear in Mesoamerica, and the same in ancient paintings from Córdoba in Argentina. In Europe this type of ornament was only known in the 14th century AD, and this seems to be a return of American influence on the Old World, received first in Indochina. De. Globus.

THE STRANGE AND ANNOYING ORNAMENTS ON THE BACKS OF MEXICAN WARRIORS, according to the so-called
The Tlaxcalan warrior, ally of the Spanish, matters, with a heron he undoubtedly embalms
They existed in Mesoamerica already in classical times, and their American diffusion was even represented in numerous pictographs.
In Indonesia they existed in the last century in the is
similar in any classical civilization of the Old World, but ornaments exactly the same!
arrived there from Mesoamerica with the same influence that brought there the trifoliate arch

According to our history, the Hindus would be the first inventors of the authentic zero, and the Arabs would have taken it to Europe; but it happens that the Hindus were not manifestly the inventors of zero, according to archaeological reports. We present an evidentiary quote, where the emphasis is ours. In India:

“Mathematics was arrested in the centuries immediately preceding and following the beginning of the Christian Era. However, this period saw the definitive realization of the numerical system and a gradual transition to decimal notation and the place value of digits. The first epigraphic example of place value is

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A MESOAMERICAN BADGE IN EUROPE IN THE 14TH CENTURY? According to J. Pijoan, Summa Artis, I take “Detail of the monument to the Can Grande de la Scala, in Verona (1329). The “detail” or “insign”
strange (and undoubtedly annoying) ornament that the knight wears on his back, and which represents
in European antiquity nor in the previous Middle Ages, but it is a typical Mesoamese insignia
Toltec representations although it existed before; Aztecs and Tlaxc also used it.
If we relate this to the diffusion to Europe of the Palenque trifoliate arch, those facts

dates back only to 594 and the digit zero appears only in 683 in inscriptions of

Cambodia and Sumatra and only in 870 in mainland India.
But the positional and decimal value of the digits was known from
the Puranas at the time of the 4th to 5th century" (Pa-reti, Luigi,
etc.: History of Humanity, volume II, page 877. UNESCO).

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We have already said that the place value of the numerals was
known before, so what matters is what is underlined. The first
appearance of true zero in the Old World occurs in the Khmer
civilization of Cambodia, just shortly after the appearance in the
architecture of the Mayan features of the Old Empire was noted
there, and that cannot be

STONE WITH TIAHUANACO TYPE STEP CARVING ON THE ISLAND OF BALI In WM Jackson, El Mund
824 in front. In front of an old temple two Balinese people are talking, but what is interesting is

with the Tiahuanacota reliefs. If that stone had been taken to a museum in Europe, altered, and it came from Tiahuanaco.

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STONE WITH STEP EXCAVATION FROM TIAHUANACO. These stepped shapes are one of the ra
civilization of Tiahuanaco, and preferably present, as here, three steps towards
Akapana pyramid in Tiahuanaco had three steps; For the same reason it is possible that r
occurs in multiplied form in an illustration of the Tzotzil cosmogony that we present and

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A MANIFEST RELATIONSHIP BETWEEN THE ANCIENT MAYANS AND CURRENT INDONESIA. Entrance to a temple according to NE
Cavaglia, Travel with me. Bali Island. The detail of the architectural ornament matters
equal distance, consisting of the representation of two small houses with sloping roofs and one

central, in an asymmetrical shape, that is to say, desi large,
something that appears in the same way in a Mayan temple in Copan. There is also a step

equally comparable.

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THE TRIFOLIATED ARCH IN ANCIENT INDIA. According to Juan Marin, La India Eterna, page. 305. The sa
Kashmir, built by King Lalitaditya (699-735 AD); its doors present a ser
They are from a period much later than what we know in the same way in the Mayan ruins of
false bow.

FORMS OF THE FALSE ARCH IN THE MAYAN ARCHITECTURE. The false arch is generally considered to be of older origin than the true arch, but in reality both appear together and develop in parallel or simultaneously. In ancient Assyria both began a great process of development, which reached Mycenae and even the Mayans. We are interested in highlighting the E. form from Palenque, which apparently shows us the oldest form of the trifoliate arch; If this is true, and there are no older forms in South Asia, this form of Palenque arch would have been spread from there to South Asia, and the Arabs would take it to Europe, where it became a fundamental part of Gothic art.

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“PENTAFOLIATED” ARABIC ARCH WITH “FALSE ARCH” CONSTRUCTION. According to Prof. Dr. A. Súheyl, from Istanbul, in his article About the History of Medicine and Hygiene in Turkey, published in ACTA CIBA, N? 4, 1935, p. 108. The author only tells us: “Entrance of the Kevher Nessibe hospital in Caesarea (1205). What matters here is the conservation of the false arch construction, of Hindu and possibly Palenque derivation, undoubtedly easier to build for this more complex form of arch than the true architectural arch. Does the same exist in Europe?

At least we know of two drawings from the late Middle Ages that represent this in Germany, but we do not know if it is a simplification effect of the drawing.

that must have disappeared. However, at that same time it was able to reach America, because then stone axes copied from the Egyptian bronze ones appear in Kotosh Wayra-jirka. A thousand years later, these feather fabrics were found in Paracas, and they continued in use until the time of the Spanish conquest.

They also met in Mesoamerica.

Later, after the Christian Era, although we have not been able to specify the date better, they appear in China, Indochina, Byzantium and even

THE TRIFOLIATED ARCH IN THE ARCHITECTURE OF PALENQUE. According to Stephens. Palace Corridor

trifoliates made with false arch. Its construction would date back to the 20th World, although in India there may be previous ones that are not known centuries later, and from there to India, etc., reaching Europe in

a coincidence nor a convergent invention.

It's too complex to even think about.

We move on to another point: feather fabrics.
There is no news of its existence in the Old World for the first periods of its history; However, there are a pair of Egyptian wooden statuettes from the time of the 12th Dynasty, around 1,800 BC. C., which represent women with a dress covered in feathers; that technique is not represented later, so

the V of the Era, that is, it is prior to all the trifoliate arches of the Old Mos. This form of arches would have flowed over Indochina a couple of times, where it caused the development of the trifoliate arches of Gothic Art.

in France, by diffusion from the East. The same as in recent Micronesia, Hawaii and New Zealand. We can make two quotes from an author who, unfortunately, does not indicate dates; We refer to Luce Boulnois in her work The Silk Road, pages 26 and 137, res-

pectively; in China:

“However, refinement and skill always reserved precious fabrics for the rich, such as embroidered silk, silks woven with small letters.

EGYPTIAN WOMAN IN FEATHER DRESS.

Stuccoed and decorated wooden sculpture called “The Carrier of the Trough”. It comes from the XI or XII Dynasty. Louvre Museum. According to P. Laviosa Zambotti, Origin and destiny of Western Culture. This sculpture is the only one (there is another doubtful one) that shows us the knowledge of feather clothing in ancient times in the Old World, where it evidently disappeared in later times. If this clothing was of the same type as the feather fabrics of Peru, it is possible that this knowledge reached America from the 12th Dynasty, since it is contemporary with the Kotosh-Wayrajirka culture.

Peruvian

who paled on the plumetis in the convents of our bourgeois 19th century, probably never suspected the remote origin of their work."

The underlines are ours. Since we do not know the earliest period in which these feather fabrics appear in China, we have to ask ourselves: had this ancient Egyptian technique also been preserved there, or does it come from the same reflux American influence that brought it?

THE TRIFOLIATED ARCH IN PALENQUE AND IN INDIA. According to GF Ekholm, A Possible Focus of Asiat Cultures of Mesoamerica, fig. 5. Fig. a, diagram of the trifoliate arches of Palenque, of the structures of Taxila, India, from the 4th or 5th century BC The shape of India does not constitute
placement of a god, and the same appears, although not in trifoliate form, among the Olmec
Sale). The trifoliate shape of the niches must have arrived at Palenque, and from them the
doors. We do not know of previous similar forms in India or Southeast Asia, because trifoliates from Palenque have flowed towards Indochina in a slightly later period, from the Romanesque and Gothic eras. It is true that
there are no trifoliate arches forming doors in the arch
The reflux of America on the Old World that we are dealing with would be one of the greatest feats of
It is only the shape that matters, not the fact that it is made up of a false arch.

multicolored bird feathers, embroidered silks..."

"Byzantium, Egypt and Syria were at that time the three main centers of the textile industry..., and also, Ernest Pariset points out, according to the Latin authors, a wonderful fabric, mixed with tiny bird feathers, technique perhaps coming from China, directly or through Iran; This very expensive fabric was called opus plumarium, feather work, and from here came the French expression "broder au plumetis"; It continued to be made in the Middle Ages, in the monasteries; Then the once authentic feathers were imitated through embroidery itself. And the thousands of girls

went to Indochina, and that it could even have arrived there before architecture? We do not know. Future studies will clarify that.

Another cultural feature that may be of American origin and that arrived in Europe as late as the trifoliate bow, are the large and strange ornaments on the backs of the warriors. This does not exist in antiquity in the Old World, although it did in Assyria, where they appear in small forms; In Mesoamerica they acquire large size and were used at the time of the Spanish conquest; Those who developed them the most seem to have been the Toltecs. In cave paintings from Córdoba, in Argentina, they appear with forms extraordinarily similar to the Mesoamerican ones. These ornaments consist

BEAUTIFUL STONE STATUE OF HUARI-TIAHUANACO CULTURE.

According to F. Kauffmann Doig, Peruvian Archaeology.
It is a magnificent statue, to which the common name of monolith no longer corresponds.
Because of his clothing, truly complete and extraordinary, it seems something very un-American.
The face is somewhat reminiscent of huaco-portraits

mochicas It is something absolutely different from everything we

present the "tiahuanacoid" cultures.

They had insignia of military ranks achieved by their bearers. In recent Indochina and Indonesia there are forms similar to the Mesoamerican ones. In Europe they appear in the 14th century

of the Era. We reproduce its representation in the sculpture of a knight from 1329, who wears an annoying and strange bird-shaped ornament on his back. A Tlaxcalan figure represents almost the same thing.

Another feature of less importance: among the Incas, according to drawings after the conquest, small metal heads, human or feline, were worn on the shoulders and knees, indicating royalty; They appear in some Mayan figures, as well as in Champa, Indochina. It arrived in Europe in the 14th century of the Christian Era, for armored knights.

One last piece of development and minor influence in Indonesia: the forms of ornaments sculpted in stone, in a stepped style, are typical of the elastic Tiahuanaco civilization. They appear in more recent times on the island of Bali.

There would even have been another great American influence of reflux in the Old World, and we have already said several things about it without going into detail, since the elements we have are very insufficient. We are referring to the possible cultural traits of origin that seem Olmec carried by the Phoenician navigation to the Mediterranean, in the orientalizing era, of which we are especially dealing with the large earmuffs. There is another feature that seems of tremendous importance, because without it classical Greece would not have existed: we are referring to human sculptures made with a living model and detailed representation of muscles, etc. That did not exist in Mesopotamia, nor in Egypt, nor in India, nor in China, until receiving Greek influence, and it began in Greece after the orientalizing era (when the Corinthians had a commercial port in Egypt). Among the Olmecs we know the sculpture called El Luchador, whose age today is between 600 and 900 BC. C., that is, it is prior to all Greek sculpture as a living model.

It is still a subject of study, so we leave it to the reader's consideration.

CHAPTER VI

Astronomical and calendrical science in pre-Columbian America and its origin in Hellenistic science. The ages of the world, the elements, etc.

1.—Our discovery of pre-Columbian astronomical knowledge in Mesoamerica and the Andean zone.

The existence of astronomical knowledge highly developed in pre-Columbian America is generally recognized for the ancient Mayans and, to a much lesser extent, for the Aztecs; As for the Incas, it is generally assumed that they were completely ignorant of astronomy, and that their calendar was purely lunar, inferior to that of most of the North American Red Indian tribes, and that they even had no names to designate any star in particular, but a general one for all of them (cuyllur).

The reality is very different and we have discovered this in recent years; First of all, Garcilaso, the author who tells us that the Incas did not have a name for any constellation, then clearly describes four constellations, which are currently known by the indigenous people and, in Bolivia, Gregorio Loza Balsa has gathered the names of about three hundred stars and forty constellations among the indigenous people of the Aymara language, and it seems that the same thing occurs among those of the Quichua language.

In mid-1971, while in Cochabamba, Bolivia, hired as director of the University Archaeological Museum (which we had founded years before), at the Universidad Mayor de San Simón, we began to make a surprising series of discoveries about the most advanced science. developed in the ancient American towns. At that time, around the month of May, we were interested in a pre-Columbian fabric of expansive Tiahuanaco origin (from around 1,000 AD, or perhaps up to two centuries before), which we had personally seen in the

Staatlichen Museums fiir Vólkerkunde in Munich, and of which we had a photographic copy published in a Catalog of that institution. In Munich, where we had been on the occasion of the 1968 International Congress of Americanists, held in Stuttgartt and closed in that city, we saw it (we were Guests of Honor there, thanks to the kindness of Prof. Dr. . Hermarm Trimborn and the Organizing Committee of the same), and we were informed that it was a representation of a calendar, which was corroborated by the text of the Catalog, in addition to other explanations.

For more than twenty years we had been collecting materials on the different calendars existing in the world, ancient and recent, ethnographic and ancient high cultures, so we had enough comparative material to study it; but the useful material to complete the interpretation of that calendar of the Tiahuanacota fabric was closer than we thought. In fact, half a century ago, Arthur Posnansky had published a personal interpretation of the bas-reliefs of the famous Puerta del Sol in Tiahuanaco, assuming that they were a calendar. This idea had been rejected by all the researchers, but we had considered this interpretation to be the most interesting of his works.

When reviewing and comparing the calendars of the fabric and the Puerta del Sol, we were surprised to see that they were the same thing, since the details of differentiation were minima. In this way, each other's calendrical interpretation was mutually confirmed. At the same time, it was the same calendar that the Incas would have used, according to the disputed chronicler F. Montesinos, and whose

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The author, naturally according to the time in which he wrote, calls him an astrologer and what astronomers know about the "circle" of the Sun, the Moon, stars, eclipses and comets, and

They were in charge of measuring the months of the year, the 10-day weeks, the hours and minutes

The incomplete paragraphs that the author dedicates to this are the only ones we know of the minutes and degrees of Heaven. Furthermore, he wrote down his measurements on a quipu, as seen

represented no instrument, of which he undoubtedly used. The figure is oriented to

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AN INCA ASTRONOMER ACCORDING TO HUAMA

poet, and not a priest nor there nor in the text; sign characteristics totally identical to those of the calendar commonly used in ancient Egypt we had recognized long ago. Furthermore, the calendar that Montesinos presents to us is confirmed by important, although incomplete, data from two other relevant chroniclers, such as Juan de Betanzos and Huaman Poma.

A few weeks later, when studying with

Compared to other calendars, we faced the problem of the Mexican archaeological monument called Piedra del Sol, or Aztec Calendar, in search of some detail that could be related to what has already been discovered. And there we were, surprisingly, as an intuitive revelation, a new and great discovery.

That archaeological monument, pride of the Pre-Columbian and current America, the same as

Puerta del Sol, is covered with the most studied in the world, being countless sculpted, hieroglyphic representations, and it is the works dedicated to its description, and object of study for almost two centuries, of and interpretation.

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that is one of the ancient objects. Well, when we study that calendar-

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Borgia Codex, according to Seler, plate 25. The five periods of the planet Venus and its guardians of the periods is done starting from the bottom left, from there to the right, from where left, ending in the Nahui Ollin sign in the center, with its colors representing respectively: Xipe Totec, in Cihuatlampa, the West. Tlaloc, in Huitztlampa, South. Matlac Mixcoatl, Mitlampa, North. :

river, as we had done numerous times before, we were surprised to discover that each time. the interpretations that we knew about it there was a basic error in it.

The starting point that was taken to try to understand it. That wrong starting point is to assume that the central figure represented there (a human face with the tongue protruding), showed us the figure or face of the Sun.

By comparing that with an Etruscan bronze piece, we realized that, clearly, that face did not represent the Sun, but the Earth.

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That changes all interpretations. But the error was also evident, as soon as the case was studied. In other Aztec bas-reliefs, the God of the Earth, Tlaltecuhtli, is represented in the form of a human face with the

tongue out, in the shape of a flint knife, as it appears in the Aztec Calendar.
It is also recognized by several authors that the two large figures that surround the calendar on its outer strip, and that represent two serpent-dragons forming a circle, would constitute the representation.

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shows the identity is the protruding tongue in the shape of a flint knife. in everything similar Aztec calendar. Other times this god is represented as a kind of toad. According to A tion of the Milky Way, so they could also represent the Sphere of the Fixed Stars and, in that case, the central position in which the Sun was set placed us in front of a heliocentric interpretation of the Universe (although that has never been said), while the Aztec conception, however interpreted, placed the Earth in that center, that is, it was a geocentric conception. Curiously, in none of the previous interpretations we have seen, did the researchers look for

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Reports obtained so far, still incomplete, from astronomy and Andean calendars, clearly indicate a similar vision of the Universe. In the Old World, this theory was only surpassed with Copernicus and the constitution of the heliocentric interpretation, more than a century after the discovery of America.

Shortly after, a third fundamental discovery occurred: one of our students, Ramón Sanzetenea, informed us that, at the end of

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24 HOURS A DAY AND 12 MONTHS IN ANCIENT EGYPT. According to D. Hammerly Dupuy, Fundame Chronology. Page 141. We refer to the transcribed text for its explanation. What matters

in the 12 months, which was a modification of the older Sumerian form (preserving the night in only 12 hours, generally called double. Our 24 hours come from there,

there the representation of the Earth, something that we discovered when we remember the Etruscan piece. This basic error was expressed by the first researcher of the monument, shortly after its discovery, in 1792, and since then it has been repeated uninterruptedly.

The rest of the interpretation arose automatically: the 20 signs of the days, which form a circle around the central figure, represent the Moon revolving around the

Land; Then, the planets and the Sun did the same, finishing the whole set with the sphere of the Fixed Stars.

In other words, the Aztec Calendar represents the set of a geocentric interpretation of the Universe, similar to the one known in the Old World in the Hellenistic era (with Chaldean antecedents), and which is the same one that survives in our time. astrology. The

June, the shadows of the sun setting on the monumental ruins of the citadel of Inca-llacta, in the department of Cochabamba, did not cast a shadow on the front of the Great Inca Temple existing there (it is the largest building that remains throughout America). We immediately related the date to the winter solstice that had just passed, but we had to wait until September 21 to travel there and see if any other observable astronomical relationship occurred, that is, at the spring equinox. .

What had caught our attention the most in Mr. Sanzetenea's report was the fact that the shadows of the sun, or rather its light, would matter not because of its rising, but because of its setting. The following thing happened there: on one side of the ruins of Incallacta there are the remains of a strange circular wall, which had to be formed.

MIDDLE AIR REGION

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LOWER AIR REGION

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THE SUB-LUNAR WORLD, according to an illustration from the work of Cardinal Pierre D'Ailly in which

Aristotle that in the sub-lunar part of the Universe, which constitutes the kingdom of the four
death; while from the lunar sphere upwards light and eternity reigned. Date:

sea a tower and of which less than

half; fortunately, its most valuable part. That wall had already been seen by the Swedish researcher Erland Nordenskióld, in 1913, who represented it on his map of those ruins, but without it having caught his particular attention. We, on several visits in previous years with our students, had seen that wall and it had surprised us, but we could not interpret it. What is important about it is that its curvature is not a continuous curve, but rather forms five successive angles.

On the day of the equinox, September 23, when we went to take photographs of the shadows in the Great Temple, at dusk, we saw the wall from afar, and we were extremely surprised that the wall in the central corner appeared brilliantly illuminated by the last rays of the sun, while the other angles were left in full shadow. That lasted a quarter of an hour. With all evidence, that

fact marked the spring equinox.

It was immediately deduced that the two extreme angles would mark the solstices, something confirmed and photographed later. The two intermediate angles have not been studied yet, due to lack of time and means, but it is likely that one of them corresponds to the passage of the sun through the zenith of the place and the other, to an old type of agricultural calendar that began the year in the middle of autumn, and which begins today on May 2, a calendar that is still in use among the indigenous people.

With this latest discovery, we are fully confronted with the existence of a highly developed Inca astronomy, which until now had been denied by all authors, in the same way that the existence of any form of developed calendar was denied among the Incas. At the same time, that science and that calendar were a continuum.

SIN = (MOON) silver

NABU = (MERCURY) blue

ISHTAR = (VENUS) yellow

SHAMASH = (SOL) dorado

NERGAL = (MARS) red

MARDUK = (JUPITER) orange

NINURTA = (SATURN) black

FIXED STARS

SATURN

JUPITER

VENUS

MERCURY

OFFICER

IT IS

RECONSTRUCTIVE DRAWING OF THE CONCEPTION OF THE UNIVERSE ACCORDING TO THE BABYLONIANS ACCORDING TO THE DESCRIPTION OF BORSIPPA, according to the 8th century BC as explained in the text of the illustration, and representation of the planets that are in the lower part of the figure, corresponding

Hammerly Dupuy, Astronomical Foundations of Chronology, p. 3. 4.

direct tion of the science of civilization
Tiahuanaco, more developed, as we will see.

We had to dedicate ourselves to reviewing all the chroniclers again (we had previously done so to write our work The True History of the Incas), and the materials we found, although scarce and dispersed, compensated for the effort. We had to do the same work, not yet finished, with respect to Mesoamerica. Likewise, we look for current works on the subject.

The result of what we have found is that, without a doubt, the ancient astronomical and calendrical science of the ancient civilized peoples of our continent surpasses everything accepted and conceived until now and, at the same time, that American science It represents a direct continuation of the ancient science of the Old World, at its moment of maximum development, in the Hellenistic era, shortly before the Era, as we will see. Elements of the oldest science, from Mesopo-

inclination of the Ecliptic) "'

“According to Tannery's hypothesis, the instrument was outstandingly perfected using a gridded or spiderweb sphere, the aeaxvy of the Greeks, our armillary sphere, which was made up of a strip: the Zodiac and its signs, and by two great circles normal to the mean great circle of the Zodiac, that is, to the Ecliptic. Placing the Ecliptic in the same position as the celestial Ecliptic, thanks to the simultaneous sighting of a star in the sky, of its configuration

ration on the Zodiac of the aeaxvy and the end of the punch or stem driven into the center of it, the solar time at night was obtained, if the figurative point of the Sun on that day on the Ecliptic of the apparatus was known, which which was very easy” (King,
Abel: Oriental Science before the Greeks, pp. 136-37).

We maintain that this is what is represented in the Aztec drawing that we reproduce. Abel Rey forgot to tell us that this instrument needed to be double, in order to reproduce the entire celestial sphere, which changes every six months, but this is well represented in the Aztec drawing.

THE CHALDEAN POLES, PRECESSOR OF THE ARMILLARY SPHERE:

“But the specifically Chaldean instrument that, due to its simplicity, its precision and its multiple uses, honors his genius, was the polos '!

“The poles are nothing other than the vault of the sky as they imagined it, but inverted. A hemisphere excavated in the stone. In its center the tip of an awl (or a globule suspended above) was stuck or stuck. The shadow projected by this punch marked, as is easy to see, at all hours of the day the course and position of the Sun in the celestial vault, exactly represented (but in reverse) by the concavity of the poles. It was enough to graduate the circumference, which was precisely the Chaldean invention. The equinox was marked exactly by a course of the shadow according to the semicircle. The solstices were the extreme arcs of the circle between which the curves of the shadow moved. The hours were equal divisions on both sides of the meridian (indicated, as in the gnomon, by the shortest daily shadows, all on the same semi-great circle. There the hours were also read directly in degrees.

tamia and Egypt, and its basic elements are the same as those from which the development of our science began in more recent times.

2.—Ancient astronomical and calendrical science in the Old World and its development in Mesopotamia, Egypt, Greece and the Hellenistic era.

Initially, since the Upper Paleolithic, time must have been counted by moons and nights, not by days, according to ethnographic remains, and the year would be marked not by the Sun, but by the return of vegetation. At the beginning of civilizations, in Mesopotamia, the duration of the moons must have been widely calculated in accordance with the solar year. Two things are possible: count the moons as having 28 days, which results in 13 moons in the year and one day left over (this is done by counting the Moon in its relation to a fixed star), or count them in relation to the Sun , which gives 29 and a half days, which are counted alternately as months of 29 and 30 days: that is, 354 days in the

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GEOCENTRIC REPRESENTATION OF THE UNIVERSE, according to the Hellenistic tradition, which follows the ba on what date but undoubtedly well before the Greek one. The Earth, motionless in the center, the seven “planets” and the Sphere of the Fixed Stars, so that there are eight in total.

interpretation of the Aztec Calendar is complete. This conception of the Universe remains

year plus the addition of an intercalary or leap Moon every two or three years.

We are more interested in the apparent movement of the Sun at the point of its rising and setting on the horizon. During the course of the year, the point of sunrise on the horizon varies; in the Old World, in summer, it reaches an extreme point towards the north; In winter, it reaches its extreme point towards the south. Those are the solstices, and on the first, the days are long and the night short; in the second, the nights are long and the day short. The intermediate point in this journey is the equinoxes, spring and autumn, in which the days and nights are equal.

today in our Astrology.

duration. In the southern hemisphere, naturally, the solstices are reversed.

These extreme points of the apparent movement of the Sun are what the oldest astronomy sought to measure, which was done through the system of having a fixed observation point towards the east (later towards the west), and two others. fixed points that marked the extreme movements of the Sun towards the north

and the south. All ancient astronomy, with respect to calendars, is based on this and on seeking the accounting relationship of that with the apparent mo-ments of the Moon, and also with the planet

Venus. At those times the light, the solar rays, mediates; Much later, in Assyria, the shadow gnomon was invented.

The main measurement used then was the human cubit, measured from the inside, not from the outside, which was subdivided into two palms, and each palm into twelve fingers; then it was measured from the outside, increasing four fingers, to put that measurement in relation to the 28 days of the moon-tion;
Later, two more fingers were added, giving rise to the royal cubit, measuring 51.5 cm, to relate it to the fixed months that had been created with respect to the solar year.

In Mesopotamia, apparently in Uruk, shortly before 3,000 BC. C., an attempt was made to reduce all measurements to a single system, based on the measurement of a solar calendar, with 360 basic days and five days added and not counted in the year; The unification of measurements was such that the same system was used for the measurements of space and time, something that is known among us.

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found separately. It was counted in twelves and sixties. The circle was distributed to the extent of the 360 basic days of the year. The year had 12 fixed months of 30 days, and each month was divided into six weeks of five days. The day was divided up like the year: it had 12 hours, each with 30 minutes, each equivalent to four of our minutes, and also to one day of the year and one degree of the circle. Previously, 16 hours had been counted in the day and night, which were reduced to the aforementioned 12; The Etruscans, Romans, Hindus and Aztecs, etc., kept those 16 hours. The royal cubit was equivalent to an hour subdivided into 30 minutes = 30 fingers.

An important feature of that ancient science was the fact that it sought to study things in motion, while our current science has always sought to study things by immobilizing them, as Aristotle did, a method that only the most recent physics has surpassed.

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ASTRONOMIC STELE OF CARTHAGE FOUND IN LIBYA. According to MB Cotsworth, Evolution of calendars, etc., fig. 7. Carthaginian astronomer determining the point of sunrise through the construction seen at the top, and having the triangle in front of him as his fixed sight. The sides of the construction mark the solstices and the center the equinoxes; In the spring the Carthaginian year began. On the other side of the astronomer, on a stick, the Sun and the Moon are united to form the measurement of one degree, of the 360 of the astronomical circle. This reproduction has been made upside down, that is, as seen through a mirror, as seen by the signs of the writing. It is a beautiful sample of ancient astronomical instruments.

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GOD CREATES THE WORLD, OR BETTER THE UNIVERSE. Taken from CG Jung: Transformations and symbols moralisée, Reins (?), 13th century. Vienna National Library. What matters is the fact that absolutely spherical, like a turtle egg, not a bird's egg. Inside the egg-univ side the Sun and the Moon already formed. The clear is the atmosphere and space, and the inner shell Despite the lateness of this drawing, it must represent the first astro conception in ancient Mesopotamia.

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This Mesopotamian calendar arrived in Egypt at least during the Third Dynasty, in the 28th century BC. C. There, several reforms were made, which, in general, consisted of doubling the time measurements, the hours of day and night were increased to 24; the five-day weeks became 10; The six seasons that were used in Sumeria, of 60 days each, were reduced to three, with 120 days each, etc.

However, in Mesopotamia, already in the historical beginnings of which we have news, that calendar had failed, possibly because it did not count the leap year, and a new type of lunisolar calendar with alternating months was adopted.

of 29 and 30 days, like the one still used by the Jews and Arabs, with intercalary moons, as we said, and with weeks of 7 days.

It would be important to study well the diffusion of these types of calendar in the Old World, but not

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DETAILED DRAWING OF THE AZTEC CALENDAR. We have taken it from the cover of the Annals of the Anthropology and History, of Mexico, considering it the. most faithful reproduction of it. various circles, and. in the center, the earth with the protruding tongue. This illustration is the outer edge of the Aztec Calendar and appears clearly. As explained in

of the Universe, in immediate relationship with that of the Hellenistic astronomical school.

we can extend more. The three types of calendars mentioned reached America; the Sumerian with weeks of five days, the Egyptian with weeks of ten days and the Babylonian with its months alternating on lunations, although there are hardly any traces of the seven-day week in America. Here we clarify that, normally, civilizations did not use a single type of calendar (we ourselves use at least four, although we generally believe we use only one: just remember our festivals

movable, which come from the lunar calendar

Hebrew solar); For example, the ancient Egyptians had six New Year's days, corresponding to as many ways of counting time.

after.

From the beginning of the ancient science to which we refer, the Universe and the

Earth as spherical. His image was a turtle egg, for the simple reason that turtle eggs are completely spherical.

We would be inside it: the yolk is the Earth, the white is the Atmosphere and the inner shell is the sphere of the Fixed Stars. The Sun, the Moon and the planets rotate within the clear. The whole was distributed in seven orientation points, that is: the four basic cardinal points, the Zenith, the Nadir, and the Center.

Naturally, this was the scientific conception, known only to astronomers and a few other people, while the majority continued to believe that the Earth was a flat disk.

We move on to discuss subsequent facts of that science. The king of Babylon, named Nabona-sar, in 747 BC, reformed the calendar.

SCHEMATIC REPRESENTATION OF THE CIRCLE OF VENUS IN THE AZTEC CALENDAR counting the times by the Sun as it passes behind it, and for the same reason it is not represented in the continuity. In front of the Sun, it is represented. In this way we must add 12 more quincunxes to the to count 52 quincunxes (the Aztec century), while commonly only the 40 v are counted

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THE COUNT OF THE DAYS IN THE AZTEC CALENDAR AND THE POSITION THEY HAD HAD FORMER. Greater explanation in the text. Added another circle of days, outer South orientation and as happens with Aries in our Astrology). The days there would be read or sign or vulture day is to the South, the monkey day to the West, and the day of death to the North, counting known. This reversal of the count of days has been warned by several authors, but up to the monkey sign, would represent the day, and the other ten the night, in the center of which is do with the Old World by accepting this explanation, and we give some samples in a drawing

darius, reintroducing the solar year of 365 days, beginning on February 26; This monarch, to impose his calendrical reform, ordered the killing of a series of astronomers and the destruction of previous works dealing with astronomy, making him the first destroyer of books in history.

Then, in the 4th century BC. C., the Persians added the leap count, counting an extra month every 120 years, lasting 30 days.

Some time later we have the decree of Cano-pus, in Egypt, from 238 BC. C., given by the pharaoh Ptolemy III, called Evergetes, by which the leap count every four years was established for the first time in history. This was copied, with adaptation to local months, by Julius Caesar, author of the Julian calendar, in the year 46 BC. C., whose calendrical reform was inspired by an Egyptian astronomer.

Nabonassar's calendar had reached Rome earlier. There, their second king, Numa Pom-

Pilio, reformed the calendar and made it begin on February 26, although he maintained a luni-solar conception. The traditional date of the founding of Rome is generally assumed to be 753 BC. C., but two Roman authors, at least, place it in 747, that is, the date of the reformed year of Nabonassar. It is possible that the start date of the Greek Olympics comes from the same, with a few more years added.

The first sages of Ionia, Anatolian Greece, introduced there some of the Babylonian science, but poorly understood or, more probably, misunderstood by later authors. Pythagoras fully introduced that science to Sicily, including the knowledge of the sphericity of the Earth; Plato and Aristotle repeat it rum and, perhaps, improved it. A little later, Hellenistic science was developed, by fusion with Babylonian or Chaldean science, and with it the summit of ancient science was reached around the 11th century.

before the Age. The length of the solar year was measured more accurately, eliminating one day every little more than a hundred years. The main centers of that science were Alexandria and Persia-Mesopotamia, but almost all the texts that remain are exclusively Alexandrian. However, we know that the Chaldean astronomers of that time managed to measure thirds ("scru-

pulos", in old Spanish), something that was not known in Alexandria. The Greek astronomer Hipparchus also managed to discover the precision of the equinoxes (it seems with Chaldean antecedents) and, especially, to measure the difference in duration of the seasons (Aphelio and Perihelio).

In the middle of the 11th century AD,

AUTHOR'S DRAWING: OUTLINE OF THE AZTEC CALENDAR. Geocentric Representation of the Un
with Hellenistic representations. Here, instead of representing the Moon, the Sun and the
a single sign and a line of dots and dashes to represent its circulation around
the Moon, the 3rd to Venus, the 4th to Mercury, the 5th to the Sun (with its circulation marked by a gr
between the inner and outer planets, which is given by the masculine rays in point
quadrangular): the number 6 represents Mars, the 7 represents Jupiter, and the 8 represents Saturn. 9 is the
Serpents-Dragons, and 10 the chronological figures expressed in the text.

STELE OF STONE FROM MESOPOTAMIA, WITH THE IMAGE OF THE SUN WITH 16 RAYS. It corresponds to the last
third millennium BC The image of the Sun has here, as in other very ancient figures, 16 r
depending on whether they are pointed or square, as in the Aztec Calendar. Previous stelae, as a representation of the Sun with
only 12 rays, also male and female, due reduction
The glass that is below is also important, which in its shape and especially for its cin
keru of Tiahuanaco. Louvre Museum.

ONE OF THE SNAKES-DRAGONS OF THE CALENDAR
AZTECA. Drawing taken from J. Imbelloni, The Second Sphinx

Indiana, fig. 43. You can easily count here the eleven scales that appear complete (each of them with 10 numeral points = days, inside), and see the one that is partially covered by the draconian leg, before the head, so that 12 are counted; The other 6 are covered by the spaces occupied by the head, the binding, the tail and part of the upper calendar sign, so that there are 18, and the same on the other side, in the other serpent-dragon. There are thus 36, the decans, and their internal points form the 360 round days of the year.

Claudius Ptolemy wrote an extensive work on astronomy in Alexandria, where he brought together all the previous knowledge but, evidently, what he left us written in it had already been impoverished with respect to the true knowledge that existed two or three centuries before, or Well, he impoverished them as an authentic representative of official and conservative science.

We will now say a few words about the process.

dence of the Zodiac. Apparently, its first origin dates back to the end of the Assyrian era, although there is not much data about it; it was later completed in Greece and Alexandria. Apparently it was produced by the reduction or transfer to the zodiacal belt of constellations that were previously counted on its two external sides, to the north and south, and thus the 12 basic signs that we use today were constituted.

There are at least two previous ways of counting constellations. We are interested in the second, which also ended up merging with the zodiacal belt, and is the one that is still preserved in our Astrology under the name of the Lunar Zodiac, and which is used for divinatory purposes; It came to Europe through Arab influence, and for the same purpose it is used today throughout the Muslim world as well as in India and China, generally for more practical purposes even for astronomical measurements of altitude navigation, a use that also well used by some Arabs. Its characteristic is that it is made up of 28 signs, sometimes reduced to 27, and circulates or functions independently of the common calendar of the aforementioned peoples. It counts intended periods specifically lunar periods of 13 days, each corresponding to 13 degrees, which represents 28 of these periods in a solar year of 364 days. The remaining day is usually added to the final month of the set.

We think it is easy to see that this is a reversal of the luni-solar year of 13 months and 28 days, which we talked about earlier. What matters is its use for divination purposes.

There is another type of divinatory calendar, frequently cited in the Bible, but never well understood. It is used today on the island of Bali, in Indonesia and in Nigeria. It does not seem to have an astronomical relationship, but rather a purely numerical one.

Count in groups of seven months of 30 days, and, at the same time, invert this count, resulting in 30 weeks of 7 days, that is, 210 days in total; then these days are doubled and there are 420 left; 6 of these groups of 420 days are then counted and a group of 7 years is formed, which doubled constitutes a cycle of 14 years. In short: it is a purely divinatory calendar, which is reflected in the seven years of the fat cows and the seven of the lean cows of the Bible, as well as in the Book of Daniel and the Apocalypse.

Our Astrology lost the use of that calendar, but the Church preserved it, expanding it with the addition of the leap year. It constitutes the account called the 28-year solar cycle, formed by the account of the so-called Letters

THE REPRESENTATION OF THE MESOPOTAMIAN “POLES” AMONG THE AZTECS. Mendocino Codex, poster Chavero. Mexico through the centuries. It is reduced in size. Azt astrologer or astronomer represented by two half spheres (corresponding to the total sphere, each six months naturally they are represented in a stylized form. Next to them a musician and a priest with observations. The two half spheres correspond to the Babylonian instrument called poles

set of the Fixed Stars.

Dominicales, whose description is found in all the Encyclopedias, which is why we excuse ourselves from discussing it.

3.—The true translation of the so-called Aztec Calendar and its geocentric representation of the Universe.

We have already said the fundamentals about our discovery regarding this Aztec monument, but we are going to present many other details. The sculpted stone we are dealing with measures almost 360 cm. in diameter and its height is 140 cm.; It weighs almost twenty-five tons, and was carved in the time of the Aztec king Axayácatl, around the years 1479-1480 of our Era.

It was located in the main temple of Mexico when it was conquered and, fortunately, the Spanish found it easier to dig a well and bury it than to tear it into pieces. In 1790 it was rediscovered when the foundations were dug

of a new building, and moved to the side of the Mexico Cathedral. Two years later, a Mexican researcher, Don Antonio de León y Gama, proceeded to study its reliefs, and identified it as a representation of the ancient Aztec calendar. The 20 signs of the days, well known from the relationships made by the chroniclers and their reproduction in the Cédices, paved the way for this interpretation; He also identified the central human face of the monument as a symbol of the Sun, which has a protruding tongue in the shape of a flint knife.

A few years later the great German researcher Alejandro de Humboldt arrived in Mexico.
Naturally, he was enthusiastic about the monument we are dealing with and with the interpretation made by León y Gama, which he repeated, dedicating to it and comparisons that are still very interesting today, more than one hundred pages in his work Sitios de las Cordilleras y Monumentos de los Pueblos Indt -genas of America. Thanks to this work, the Aztec calendar began to be known and studied by European and North American researchers.

grays, and the interest has been maintained until now, with multiple and new forms of interpretation, both calendrical, astronomical and cosmogonic. All these subsequent interpretations have repeated that the figure of the central human face is the Sun.

We have already expressed our discovery that it is not the Sun, but the Earth. This resulted from the comparison of that face, and other features, with the motifs that appeared on an Etruscan bronze lamp from the 6th century BC, which measures 58 cm. diameter. In this lamp the head of the Gorgon appears as the central figure, with its tongue protruding, surrounded then by a series of animals and then by 27 signs in a spiral shape (which should represent the 27 days of the visible Moon). ; 16 human figures follow, arranged radially, alternately male and female, representing the points on the horizon and the hours of the day (the Etruscans and Romans

ban 16 hours), that is, the Sun, revolving, like the Moon, around the Earth, represented by the Gorgon.

This immediately reminds us that the goddess Kali, or Durga, of India (and on the island of Bali in Indonesia), has as one of her main attributes the protruding tongue, and also represents the Earth. We look for that detail in others

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Aztec figures and we find that the Earth has two forms of representation there: the first, feminine, with the name of Coatlicue; the second, male, as Lord of the Earth, with the name of Tlaltecuhtli, and is normally represented with a human face with the protruding tongue in the shape of a flint knife, coinciding in everything with the central face.

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WONDERFUL EGYPTIAN ASTRONOMICAL PAINTING RELATED TO THE AZTEC CALENDAR. According to MB the calendars, etc. From the temple of Denderah, similar ones are found in Esneh and Ed
It is originally more than a millennium BC, but it was rebuilt and its paintings
so most of his paintings are from those times. Monthly assignments
errors, since July cannot be at the same height as January, etc. Both women matter
beetle (one deleted) and later swallow it. Its position, although inverted (
comparable to that of the two great serpent-dragons of the Aztec Calendar, and each one
figures that appear on small boats are the 36 decans of the year, that is, the 360 days. corresponds to the equal days of the beginning of Autumn in the Northern Hemisphere. In the calendar
wears a different mask, they are represented by the scales of the serpent-dragons

Do not column.

of the Aztec calendar. With this, the basic error in the previous interpretations was clarified. AND

We looked again at the motifs sculpted on the Aztec calendar and compared them again with the Etruscan lamp. In the latter, undoubtedly, the 27 spiral signs represent the Moon, on the days when it is visible. Its correspondence with the 20 signs of the days of the Aztec calendar was clear, since the Aztecs had reduced the length of the month to 20 days (according to their way of counting), and gave it the same name as the

Moon. Having identified these 20 signs of the days with the representation of the rotation of the Moon, it is clear that they symbolize it, rotating around the Earth. This, naturally, could not have been verified before, since it was thought that the central figure was the Sun, since the Moon does not revolve around it, but around the Earth.

Then, the 16 figures of the Etru-can lamp were clearly represented, although differently, in the Aztec calendar; but what matters is their number and the fact that they are alternately masculine and feminine. The Aztecs, like the Etruscans, counted 16 hours in a full day, and their representation in the calendar was 16 solar rays, alternately angular in shape (male) and quadrangular in shape (female). The same representation, more similar to that of the Aztec calendar, appeared in ancient Mesopotamian sculptures that show 16 solar rays, eight pointed and eight flattened. A survival of this among us consists of painting the Sun with 16 6 32 rays, alternately with a straight tip (masculine) and with a wavy tip (feminine).

It was clear that those 16 solar rays of the

THE GORGON AND THE EARTH IN GREECE. The “Shield of Strangford”, fragment of a simple replica
Phidias. In the center the figure of the Gorgon, with her tongue protruding, and her head surrounded
important aspect of this shield is that the proportion of the Gorgon's head is one fifth of the
proportion of the Earth in the central figure of the Aztec Calendar, thereby showing the count as corresponding to five
diameters of the Earth. According to J. Charbonneaux, La Scu

COSMIC REPRESENTATION IN THE HEAD OF A LURISTAN DISC PIN? According to R. Ghirshma
Luristan, 8th-7th century AC Colec. private, Paris. To the centre, the evident head of l
six fish, which must represent the water that surrounds the Earth; then a circular band with
the days of the visible Moon; finally another similar band with 36 performances of the m
year, that is, the Sun. Compare this with the Etruscan bronze lamp. Tie proportion

Aztec calendar showed the Sun revolving, like the Moon, around the Earth.

Between the terrestrial disk, that is, the face

human, from the Aztec calendar, and the circle of the days of the Moon, other figures appear that have received various interpretations, sometimes complementary, and that correspond to the aforementioned animals of the Etruscan lamp; The basic interpretations that have been made about the four main signs agree that they represent the four seasons of the year, the four elements and the four past Ages of the World. We believe that all of this is exact and corresponds to each other, just as it cannot correspond to the assumption that the aforementioned features are surrounding the Sun. It is clearly about sublunary facts, it is about

two by Aristotle, etc.: basically, the four elements of the world where destruction and death reign, while the sky, starting from the sphere of the Moon, is incorruptible.

What follows no longer appears on the Etruscan lamp, but its importance is extreme. After the circle of days that represents the Moon, in the Aztec calendar, another circle appears formed by a series of squares, each one with five points inside; All authors recognize that it is a representation of the planet Venus, and the sign is called the quincunx or Cross of Quetzalcoatl. This circle is distributed, or broken, into four equal parts, each with ten squares, by the bases of the four largest

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THE "13 DAY WEEKS" IN THE MAYAN CALENDAR, GENERAL IN MESOAMERICA. According to Escalona Ram
vertically the 20 days of the Mesoamerican months are indicated, and above are the names of
final days of the year (called uayeb) Compare this with the Arabian calendar chart identity of the count of the
weeks of 13 days is total and forms a year of 13 months of 28
difference; In the Arabic calendar the last week of the year consists of 14 days, while
new cycle (as in our Sunday days), which is completed after 52 years (in nu
years): that is to say: the Mesoamerican calendars moved, the Arabic one did not, as it does not move.
identical to Arabic. In the Old World this calendar is governed by the succession of 28 states
also in Mesoamerica but there are no references that we know about it. Naturally, it would only occur after 52
years. In Peru the same thing should have been known, according to three references.
a Moon count of 13 degrees in the Sky, that is, 13 days.

masculine solar rays (the other four frequently look for those 12 little squares that masculine rays lack those
bases). missing; They easily found that the rays thus result in 40 squares of Venus. feminine solar
figures (which they call aspas, merlons, etc.) each contain one of these quadri-But, for the count to
be perfect, cough, and then, under the central human
face, there should be 52 Venusian squares, in rela- two others: with that 50 quadrit were obtained

tion, counting his points, with the 260 days of the other two who are missing were searched for
tonalamatl, the 52 years of the Aztec century, etc., traditionally in various places in the e
way that the other authors have dedicated themselves to.

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3 al-Nathrah 10 a/-Ghufr 17 al-Mirzam 24 al-Nath

4 al-Tarf 11 al-Zabáan 18 al-Suhail 25 Bufain

5 al-Djabhah 12 al-Iklil 19 al-Uraik 26 al-Thuraiya 6 al-Zabrah 13 al-Kalb 20 al-Khiba 27 al-Barakan 1 al-Sarfah 14 al-Shawl 21 al-Fargh 28 al-Hak'ah

THE "13 DAY WEEKS" OF THE MESOAMERICAN DIVINATORY CALENDAR IN SOUTH ARABIA ACTUALLY
Serjeant, Star-Calendars and an Almanac from South-West Arabia, tabla I. Del Hadramawt, se
weeks of 13 days (except the last one that has 14 days), as seen; every week you run
find at the foot. The table has been made to match our calendar, but
April. Above are the names of the four seasons. The identity of these weeks with the constitution is Mesoamerica of the Tonalamatl of
260 days (20 weeks of 13 days), of additional use
started in Indonesia, where traces of it remain. See the following table of the same car

We, upon realizing that the Moon and the Sun revolved around the Earth, assumed that Venus had to do the same, and with this we remembered that both Venus and Mercury are interior planets, that is, they are between the Sun and the Sun. Earth, while Mars, Jupiter and Saturn are outer planets. With that, things were immediately clarified: Venus, in its rotation, sometimes passes in front of the Sun and other times behind it, being perfectly visible when it passes in front of the Sun. Now just look at the drawing that we reproduce from the calendar

Aztec: in it the male solar rays are some large, and others small (without the base of the previous ones); manifestly, Venus passes in front of the Sun in terms of solar rays

LARGE MAYAN QUADRANGULAR STONE FROM THE ANCIENT CITY OF COPAN, showing a meeting of astronomers who reformed the Mayan calendar shortly after 500 CE. North and West sides. 16 astronomers are represented there, and their Arab-type turbans are notable. There is little data on the calendrical reform carried out at that time, but it must have involved the fact that four days had to be removed from the account every little more than 500 years. An extremely important question arises: did this ebb in later Arab science, along with zero, etc.? American civilizations had, due to their geographical location within the tropics, an advantage over those of the Old World: as the Sun passed through the zenith of the place twice a year, they could measure the exact length of the year much better. There are, in total, sixteen astronomers.

so that with the 40 visible they form the 52, so the count is perfect.

E Solar Stations Agricultural Stars. Evening Ascensions Morning Ascensions

Enero Sad al-Dhabih

Sad Bula'

February Sad al-Sutud
Sad al-Akhbiyah

Marzo al-Fargh al-Mukaddam al-Fargh al-Mu'akhkhar
Bafn al-Hut

April al-Sharafain

al-Bufain

Mayo al-Thuraiya

al-Dabaran
Junio al-Hak'ah
al-Han'ah al-
Dhira'
Julio al-Nathrah al-Tarf

Agosto al-Djabhah al-
Zabrah
September al-Sarfah
al-"Awwa
al-Simak
October al-Ghufr
al-Zabana
November al-Iklil al-Kalb

December al-Shawlah
al-Na'a'im al-
Baldah

Rabi' Awwal (Evening)
Rabi' Akhir (Evening)
Khamis al-Sawab

Sadis al-Sawab

Sabi' al-Sawab

Zafir Awwal

Zafir Thani

Simak (al-Far")
The Lord of Kamah
Ghurúb al-Thawr
Tulu' Kamah

Tula' al-Thawr

Tulu' al-Zulm al-Awwal
Born' al-Zulm al-Thani
'Alib

Suhail

Rawabi' Awwalah
Rawabi' Akhirah
Khamis 'Alan *

Sadis 'Alan

Said 'Alan

'Awwal Fari'

Rabi' Kamah (Evening) al-Thawr
(Evening) al-Nadjmain
(Evening)
Zulm Awwal (Evening)
Zulm Thani (Evening)
Suhail (Evening)

al-Nathrah al-Na'a'im
al-Tarf al-Baldah
al-Djabhah al-Dhabih al-Zabrah
Sa'd Bula'
al-Sarfah Sa'd al-Su'ud
al-"Awwa Sa'd al-Akhbiyah al-Simak
al-Mukaddam al-Ghufr al-
Mu'akhkhar al-Zubana al-Risha
(Bafn al-Huút)
Iklil al-Sharafain
al-Kalb al-Bufain al-
Shawlah al-Thuraiya al-Na'a'im al-
Dabaran
al-Baldah al-Hak'ah
'Sa'd al-Dhabih al-Han'ah

Sa'd Bula' al-Dhira'

Sad al-Su'ud al-Nathrah

Sad al-Akhbiyah al-Tarf

al-Fargh al-Mukaddam al-Djabhah al-Fargh al-
Mu'akkhar al-Zabrah

Bafn al-Hut al-Sarfah
al-Sharafain al-"Awwa
al-Bufain al-Simak al-
Thuraiya al-Ghufr al-Dabaran
al-Zubawá
Al-Hak'ah al-Iklil al-Han'ah
al-Kalb al-Dhira" al-
Shawlah

THE "13 DAY WEEK" IN ARABIA AND ITS DIFFUSION IN THE OLD WORLD. According to RB Serjeant, St from South-West Arabia, table lll. The 28 weeks of 13 days are indicated, in correlation with different from the one that appears in the previous table, since the account begins on January 10 days corresponds to the ascension of a star. Correlation with the Tonalamatl mesoamer

The important thing is this: these 13-day weeks, with 28 of them in the year, we use them Lunar (which is made to begin in April), and were used among the Chaldeans, India, China, and the M divinatory The cultural trait of the 28 stars is very important, since they had Mesoamerican peoples. The system, originally, must have gone together with the account of 13 me The previous one lacks any indication of months as in the Tonalamatl.

small or without a base (which is covered or covered by Venus) and behind the Sun, with regard to the large solar rays. The space occupied by the base of the large masculine solar rays occupies exactly the extension of three squares in each of them. There are a total of 12 little squares of Venus hidden like this,

334

A similar case occurs with the following sign, which consists of a kind of U and is generally called "eagle feathers"; These form another circle, next to that of Venus, and have to represent the planet Mercury, according to its position; the male solar rays cover it in all cases. The visible signs

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CONTINUATION of the sculpture with the 16 astronomers of Copán, according to Stephens; South and East sides.

They form eight groups of 10, but of the two lower groups only five can be seen, since the rest are covered by the plumes of the serpent-dragons; counting those that are missing, and the extension of the signs covered by the masculine solar rays, we would have 104 signs of Mercury, which correspond to double

Aztec century of 104 years.

Three different circles follow, all of them covered in their course, by both the masculine and feminine solar rays; The first consists of 16 double circles, with lines that join them on their sides, and has to logically represent Mars. The next sign, which would represent Jupiter, consists of a kind of warheads or arrowheads (they have been called both ways); It appears four times (in the free parts) between each masculine and feminine solar ray, so that we could count 64, in addition to those covered by the solar rays (two for each masculine ray and three for the feminine ones, according to their extension, which gives us 40 more). In this way, we would have the count of 104 years again, the Aztec double century.

The next sign is not clear, it has to symbolize Saturn, but there are two signs that can represent it; The first are some little circles on the feminine rays, that is, there are 8; At the same height, between them, there is a kind of flame that comes out of the dragon-snakes, in number of 12, but we must count four more, which would be found covered by the heads and tails of said dragons. snakes, so there would also be 16. The number 16, in the representations of Saturn and Mars, would give us a purely numerical representation and artistic harmony, while in the other three planets referred to their duration would be counted in astronomical relationship with the Aztec century.

We still have two circles left. The first is formed by the two large serpent-dragons, which are arranged in the form of a circle with their heads downward and tails upward; That they are dragons, and not purely snakes, is seen from the fact that they have forelegs drawn up behind their heads. Each serpent-dragon holds a human head in its open mouth and has a plume with seven stars, which is undoubtedly a constellation.

We are not interested here in studying the details of heads and tails, but in understanding the basic set of facts. In all of the above

We have seen that the circles rotate, going around the Earth, and the same has to happen with these serpent-dragons. In other words: their representation with the head down would correspond only to one moment of the year, probably the date of New Year, but three months later those heads have to be on one side and after six months, the heads have to be upward, in accordance with the celestial movement of the

lation that they carry in their plume.

For the same reason, we are especially interested in relating the following: each of the serpent-dragons has on its body, as its main sign, a series of squares that we will call scales; Each scale has 10 points inside (in addition to other signs) and those points are known numerals; The number of visible scales is twelve, although one of them is half covered by the dragon's leg. Then, near the tail, there is a kind of tie, which occupies the space of another scale, which we consider covered; Having done this, we note that we must count other scales covered in the spaces occupied by the heads, tails and the upper sign (which is a calendar sign with the date 13 Cane). It is clearly seen that this must be counted just by turning the serpent-dragons a quarter. The space occupied by the heads corresponds to five scales, the same as the tails, so that 18 scales correspond to each snake-dragon.

The final interpretation is already clear: there are 36 scales in total, each one with 10 points. No one can fail to see there the 36 decans, Egyptian in origin, of our Astrology, and the 360 days of the round year which, in turn, represent 360% of the measurement of the circle. Therefore, the serpent-dragons represent the Sphere of the Fixed Stars (not the zodiac, we clarify), and each of them, the space of the year included between the two suns.

ticios.

We present the drawing of a wonderful Egyptian astronomical painting of the temple of Den-derah. This temple dates back more than a millennium BC. C., but it was rebuilt several times and its paintings renewed in the Hellenistic and Roman times, perhaps with modifications; but even if the paintings had been made in the late Roman period, our comparison does not alter in any way. There appear two representations of the Goddess of the Sky, Nut, arranged in a quadrangular shape (possibly due to the shape of the roof on which it is), and which can be totally compared with the two

And equinoxes of
spring and autumn

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TWO PLANS OF THE CHICHEN ITZA ASTRONOMIC OBSERVATORY. Upper floor of the building or round tower known as El Caracol, which is the best-known Mayan astronomical observatory of the New Empire. The tower was largely destroyed (today it has been rebuilt).

From the central chamber the Solstices and Equinoxes are measured, at sunset, as in the Inca astronomical tower of Incallacta. Possibly in the

destroyed parts, similar observations were made about the sunrise. The measurement of the maximum declination of the Moon is important, which indicates the knowledge of the 18-year cycles, which allow predicting lunar eclipses. Also, and very much in the background, the indication in the North of the Polar North and Magnetic North; The first is taken exactly with astronomical measurements, the second is not: it can only be taken with a compass, however primitive it may be, we assume a small piece of lodestone embedded in a cork or piece of wood.

floating in a dish of water.

serpent-dragons of the Aztec calendar; The position that these women have, with their heads up, would simply correspond to a representation of the beginning of the year six months apart from the Aztec one. The goddesses, or goddesses, give birth to the Sun every day in the form of a sacred scarab (one erased), and at nightfall they swallow or eat it, passing through their body to be reborn in the same form the next day.

In the space between both representations of Nut we find, first, a

series of figurines arranged on small boats, 36 in number and corresponding, naturally, to the deans. Further inside are the figures of the Hellenistic zodiac, as can be seen by the representation of the scale, the bull, Sagittarius, etc. Despite the differences in art and details, it is indisputable that it is the same representation of the stellar Universe.

We need to explain the last circle of the Aztec calendar, at its extreme edge; It is double and only appears on the sides of this calendar, so it is incomplete but appears in its entirety when the serpent-dragons move. It is double, because first there is a series of small stripes and then, towards the outside, another of dots. Each point is worth one, each line five.

We have to read this circle, or circles, totally-

“mind, passing through the parts covered by the

heads and tails.

The number of lines is equal to the number of points, that is, a point is superimposed on each line; In written Mayan numerals, that would mean the number six, but we prefer to do the calculation separately, since in any case it is easy to combine both amounts later.

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MEASUREMENT OF SOLSTICES AND EQUINOXES IN THE OLD MAYAN EMPIRE. Observator diagram group E. in Petén, Guatemala; with indication of the measurements of the Solstices and Equi

manifest has been indicated above the figure “Sunsets”). Despite the greater development
shape exactly the same as in the first Kalasasaya of Tiahuanaco. Taken from D. Hammerly D

Chronology.

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~=(Abode of the Gods)

EARTH (Abode of the Living)

UNDERWORLD
(Abode of the Dead)

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THE COSMIC IMAGE OF THE CURRENT TZOTZILES, MAYANS SIMILAR TO THE BABYLONIAN. According to WR cosmological Tzotziles, etc., fig. 1. Compare this with the most recent Mesoamerican reconstructed Babylonian figure, there are thirteen steps up and nine steps down in the shell-like set of the Fixed Stars. In reality the account is altered

We tell the reality, there are seven steps up and five down, which runs
the antiquity of the seventh heaven and fifth hells, to which the whole forms the twelve m
Jesus Christ is identified with the Sun and the Moon with the Virgin Mary. The gods and goddesses

consequence on agricultural production.

visible dots and stripes, which are 63 or 64 on each side, according to various authors, but the total that can be obtained by completing the circles, that is, counting the dots and stripes that are covered by the heads and tails. Since we cannot make this count directly, we count the signs indicated in a visible segment of the circles, those existing in a quarter circle, in the part located between two smaller male rays, on both sides. The result is 52 signs.

Extending this to the full circle count, we have 208 dots and 208 stripes in the full circle count.

The number of points symbolizes four Aztec centuries of 52 years, or two double-centuries of 104 years; The lines, which must be multiplied by five, give us a total of 1,040 years, 6 20

centuries of 52 years 6 10 of 104. The sum of both figures gives us 1,248 years. The figure of 1,040 years is of great importance in Aztec chronology, and has been searched for more than once in debatable calculations. These figures no doubt refer to cosmic ideas about the duration of the Universe, but to discuss that would be too extensive for us to deal with here.

In all of what was explained above-

te, it is clear that the Aztec calendar shows us a total representation of the Universe, conceived in a geocentric way, with the spherical Earth, etc., as it was fully developed in Hellenistic science, on the basis of knowledge and measurements made before by the Chaldeans. The necessary background for such an astronomical development does not exist in America and, therefore, must have already arrived complete to our continent.

THE BABYLONIAN COSMIC CONCEPTION AND THE ANCIENT MAYA. Compare with the attached illustration of

descendants of the ancient Mayans, according to WR Holland. Here the Earth is represented corresponding to day and night. In reality there is an error in this reconstruction, because like down. The reality is that the pyramid below had only five levels, as s survivors: the seventh heaven and the fifth hells. The Mayan reconstructive drawing is cosmic was the priestly and popular one, not that of the astronomers who long ago conceived

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b

MESOAMERICAN ASTRONOMICAL OBSERVATORIES, represented in mixed hieroglyphic writing
firm, with a human eye on top in the second and third cases, and with an astronomer looking p
somewhat rustic procedure, but no less effective. In third figure, see the two

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THE GATE OF THE SUN OF TIAHUANACO. Along with the Aztec Calendar, they are the two largest monum
First exact interpretation was made by Posnansky in 1918, although without solving the problem
leap year This door was part of a wall, perhaps a kind of Arc de Triomphe, and its
sides. What must be read to interpret it are the signs found in its part.
(see drawing), that is, we must exclude the last three series of figures on each side.

Furthermore, the Aztec calendar does not show us drawn on a plane as we could a flat representation of the features there represent it on paper, and as they were
represented, but it is a representation of the astrolabes. More clearly explained three-dimensional made in flat. In other words: the various circles, that of the Moon
bras: it is a kind of armillary sphere, etc., we must assume that they rotate vertically

on the Earth, not on a simple plane around it. This necessarily assumes that the original model was a three-dimensional sphere, a form of armillary sphere, whose first invention is attributed to Hipparchus, in the 2nd century BC.

We assume that these same things must have existed.

but, made of wood or other perishable materials, which the Spanish rushed to destroy during the conquest. Furthermore, the pole of ancient Mesopotamia is a direct antecedent of the armillary sphere of Hipparchus, and

"In fact, two main classifications have had a lasting order. The first, that of Anaxagoras, was adopted by the Pythagoreans, by Plato, Eudoxius, Aristotle and by the ancient Stoics. This was:

"(1) Earth, Moon, Sun, Venus, Mercury, Mars, Jupiter, Saturn, stars.

"The other, proposed later by the Stoics, places the Sun by symmetry in the middle of the sequence.

"(11) Earth, Moon, Mercury, Venus, Sun,

VIEW OF THE AKAPANA PYRAMID IN TIAHUANACO, photo by the author. At first glance it looks like one built with earth or adobe from its base; It is about 18 meters high and its shape is a front, it has had three floors, marked by walls of carved stones, of which there remain
constructions of the neighboring town. At its summit there was a large temple, of which only a few remain.
Its construction must have been a little after Christ.

We have a representation of it in a codex somewhat after the conquest, which we reproduced along with its due explanation.

It is generally accepted that the geocentric interpretation of the Universe, in its complete form with the five visible planets, etc., began in Babylon in the time of Nabo-nasar, or shortly before, and thence passed to Greece, where Pythagoras was its main representative.
Naturally, since the Sumerian era, as we said, the spherical conception of the Universe and the Earth would already exist, with the Moon and the Sun revolving around the Earth, but still without the five visible planets.

Regarding the latter, we are presented with another important problem. We have no news about the development of the measurement of the distances of the planets in Babylon, but we do have news in Greece, which continuously received Chaldean influences. We will make an appointment:

Mars, Jupiter, Saturn, stars.

“Adopted by Hipparchus, this order II was preserved by all astronomers until Copernicus. The empirical rule that led the Greeks to these two choices is evident: a longer revolution must correspond to a more distant planet..." (Couderc, P.: The stages of astronomy, p. 42).

The place in which we have described or placed the Sun in the Aztec calendar corresponds to the second order explained, and we have done so on the basis of the differentiation of the inner and outer planets, marked by the difference in length of the solar rays. masculine and feminine. But there is another possibility of telling this order, and it is indicated by the base of the major masculine rays, as well as by the position of Venus, which undoubtedly corresponds to

put to the first order. If we consider that, the order of all the stars in the Aztec calendar

ca fully corresponds to that used by Plato, etc.

There is still another point to address here. We have already said that in ancient Sumeria even the diameter of the Earth was measured. We cannot deal with the details here, but the total obtained seems to be almost a fifth greater than the actual diameter, a figure that Aristotle tells us, years before the measurement of the earth by Eratosthenes.

entrusting him with the office of guardian and watchman of

All of them..."

This corresponds exactly, in the Aztec calendar, to the position of the Sun with its center between the masculine and feminine rays, as we have fundamentally done; that is, the

Fixed Stars are twice as far away as the

diameter of the Earth. In the quote it also appears that Nabonassar's calendar had an undoubted Egyptian influence, since it places Sirius as the main star in the sky, contrary to what was previously accepted in Mesoamerica.

THE GRAND STAIRCASE OF THE KALASASAYA OF TIAHUANACO. Look towards the sunrise and in its center looking from the back of the building. The building was built shortly after exactly. Photo by the author, about twenty years ago; currently the building and the staircase

Mr. Carlos Ponce Sanginés.

What interests us with respect to the Aztec calendar is that in the latter the diameter of the universe is undoubtedly measured with reference to that of the Earth; In fact, the diameter of the Earth represented there is exactly one fifth of the total diameter of the monument, and, consequently, of the Universe.

We find this measurement in Greece, drawn on a shield, and also in Persia and India, in later mythological quotes. We can see what Plutarch tells us in his work Isis and Osiris, on pages 81-82 of the consulted edition:

“*..Then Ormudz, adopting a triple growth, was placed at a distance from the Sun equal to that which separates this star from the Earth. In that place he spent his time decorating the firmament with stars, giving each one of them, Sirius, preeminence over all the others, conpotamia, which placed the Pleiades in that place. The latter seems to have been the dominant idea in Mesoamerica and the Andean region.

4.—Mesoamerican calendars and chronology and various comparisons with the Old World.

The oldest samples of calendrical inscriptions in Mesoamerica, according to Alfonso Caso, date back to 800 BC. C., as we can see in the following quote:

"Let us now look at other very important aspects of the "Olmec" culture. There is no doubt that at least since the Zacatepequez phase in Guatemala, they had a calendar and writing, that is, from 800 BC. C. This scripture and this calendar

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PLAN OF THE KALASASAYA OF TIAHUANACO, ACCORDING TO POSNANSKY. This building constitutes a major obse
Measurements and explanation are given in the text. The current position of Puerta del Sol is located
be in the center of the construction. This building has two periods of construction: in the second, the “Balcony Wall” that can be
seen at the top (West) was added and the one with
remains, In the first epoch the amplitude of the Sun's movements was measured in the Solstic
(below the sunrise on the Solstices in the smaller internal building and on the Baltic Wall
grand staircase Below all, a plan of the so-called small Kalasasaya, earlier in time.

They had been able to reach towns that received their influence and in Monte Albán I (600 BC) it already existed perfectly clearly and we have been able to translate it in part” (Caso, A.: Did there exist an Olmec Empire?, page. 22).

We have that other work by A. Caso, on the writing and calendar of Monte Albán I; It is valuable, but we do not fully agree with its interpretation. We also have dozens of works on the Mayan calendar, which, for the most part, are in complete disagreement with each other.

The historical data and inscriptions do not clarify the problem of the succession of the different calendars that existed in Mesoamerica (and that must also have existed in Chavín, etc.), but it is likely that the calendar of 13 lunar months would have arrived first. -res of 28 days, with 364 days in the year and one left over; The Sumerian calendar also fully arrived with 360 basic days, five surplus days and five-day weeks (which is used

ba throughout Mesoamerica at the time of the conquest); Then a lunisolar year was known, with alternating months of 29 and 30 days, of the Babylonian type. From the first we have a clear reference to the month of 28 days in the Popol Vuh; the second and third, both used by the historical Maya, appear in lapidary inscriptions; Later came the 365-day calendar, still without the leap count, and, finally, the leap count, along with other very important details that we will see later.

We move on to the 7-month divination calendar.
periods of 30 days, counted twice, is de-

cir, 14 months, as it appears on the island of Bali and Nigeria. In Mesoamerica, there were 18 months, with 20 days each, to form the basic 360 of the year. There are many languages there, and, naturally, in each of them the months had different names, although generally with similar meanings in their translation. In half of these languages, the name of four of these months means an increase in the name of the previous month, and the position it occupies in the

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THE'EXISTING CALENDAR TIAHUANACO FABRIC IN MUNICH. It is preserved in the Staatlichen Museum
Catalog published by Dr. Andreas Lommel: Altamerikanische Kunst Mexico-Peru. the same
times, up and down from the center. In the lower band you can see 12 human figures,
There are three columns of circles with 10 of them each, which represents weeks of 10 days.
The human figures have 5 heads, except in the third human figure that has 6, rep
leap year This is exactly the Egyptian calendar of the Decree of Canopus, from 238 BC
Solstice.

DIAGRAM MADE BY POSNANSKY FOR THE INTERPRETATION OF THE PUERTA DEL SOL OF TIAHUANACO.
Egyptian-type calendar, with 12 months of 30 fixed days, not lunar. The boxes in bl
They represent the 30 days of the month of September. The account is made from the central figure
starting from the Spring Equinox, and the solar heads below are the eleven months explanations. Yo

months that increase is almost the same as that of all the deaths"; the twelfth, "Little

them, which demonstrates a common origin. For example, in the Aztec language, the third month (translated its names) was called "Little Vigil"; the fourth, "Great Vigil''; the seventh, "Little festival of the lords''; the eighth, "Great Feast of the Lords''; the ninth, "Little festival of the dead"'; the tenth, "Great party

hay''; the thirteenth, "Big Hay." Among the Cakchiquels, instead of the words small and large, the words first and second, etc., were used.

Clearly, the names of the months must have been increased from 14 to 18 when the reduction of the 30 days originating from

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THE CENTRAL FIGURE OF THE PUERTA DEL SOL DE TIAHUANACO: According to Arthur Posnansky. Represent a
I begin on the 23rd of that month, that is, on the Spring Equinox. The six little heads that appear
of the character, correspond to the five extra days of the year and the leap count, like the Munich Fabric, the head of the character is outlined by 24 rays, ending in dis
of the day according to the Egyptian account (in other Tiahuanaco sculptures only 16 rays are counted
Roman, Aztec, etc.) The band of fretwork that surrounds the face has 36 lines at ten-degree angles.

the months to only 20 days, at the same time as its adaptation to the solar year of 360 basic days.
Something similar happened with the origin of the names of our months, when the Romans copied an Etruscan divinatory calendar of 10 months of 30 days; The months of January and February were then added, placing them at the beginning of the year, with which they were named

which are called month seven (September), month eight (October), month nine (November) and month ten (December), when they are, in reality, months nine, ten, eleven and twelve.

Naturally, at that time the five extra days of the year would also be counted, but not yet the leap year. At the same time, to preserve the divinatory calendar, it had to be created

THE COUNT OF THE MONTHS ACCORDING TO POSNANSKY in the Puerta del Sol of Tiahuanaco, and its reflection in
The two Equinoxes are counted in the center and the Solstices are counted at the ends. Further explanation

It should refer to the West, not the Rising.

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DEVELOPED DRAWING OF THE SIGNS PRESENTED BY THE BENNETT MONOLITH: This monolith, currently

of those found in Tiahuanaco and corresponds to the time of the first construction of the K
meters high and is made of reddish sandstone. Its bas-reliefs undoubtedly represent a ca
as similar to the one that appears in Puerta del Sol, but it is undoubtedly different and more bi
alternating 29 and 30 days, that is, 354 days a year, which was complemented by a bi-moon

Babylonian calendars, which are still in use by the Hebrews and Arabs.

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A DIVINATORY CALENDAR EXISTING ON A DOOR IN TIAHUANACO, DESCRIBED IN THE BIBLE AND CURRENTLY USED ON THE ISLAND OF BALI, INDONESIA. The so-called "Door of the Pantheon" in Tiahuanaco, monolithic, in whose upper part there is engraved the representation of a Calendar of only seven months of 30 days, comparable to the Mesoamerican tonalamatl (of 260 days, with 13 months of 20 days); A similar calendar is referred to in various parts of the Bible, for divinatory uses; The same is used today on the Island of Bali in Indonesia. There are no historical references to the existence of this calendar in the Andean zone, but its translation is clear: it was repeated until it formed cycles that coincided with the solar calendar. According to Graziano Gasparini, Visión arquitectónica de Tiwanaku, offprint of "Shell Magazine", No. 44, Lima, September 1962.

the tonalamatl of 20 weeks of 13 days each

previous calendar of 13 months of 28 days, reversing it, as we said happens with the so-called Lunar Zodiac; That is, there are 28 weeks of 13 days per year. Explaining the details of this would take too much time, so we limit ourselves to referring to two numerical tables.

about the 13-day week, currently in use in South Arabia, and whose relationship with the same weeks in Mesoamerica is total.

We will dedicate ourselves to addressing some fundamental points. Five-day weeks, of Sumerian origin, are used today in Africa and part of Indonesia, and were common and civil in Mesoamerica. Then, since the leap year is not counted,

in the 365-day calendar, it happened as in the

one, thing that should have been done about a type of

THE MAYAN “KATUNES” AND 260 YEAR CYCLES IN THE PHILIPPINES

Counting in 20-year cycles of time seems to be exclusive to the ancient Mayans, but it is not as exclusive as we will see. The Mayans also used 24-year cycles (cited in the Books of Chilán Balám), of which we find a precedent from the Roman king Numa Pompilius; They also appear in the Bible.

But we are now interested in the Philippine antecedents, unfortunately brief and incomplete, but sufficiently clear of the existence among the Tagalogs of Luzon of the existence of cycles of 20 years, and greater than 260 years, the latter being a classic Mesoamerican figure. The report is found in the work of Enrique D'Almonte: Formation and evolution of the Indonesian and Malay sub-races, pp. 371-74. It is possible that there is more information about the case, but we do not know it. We quote what the author tells us:

“From the Bathala, where sacrifices were offered under canopies of branches, the pilgrims crossed the watershed to the Pacific and descended to the Sabala-nasasin (or Alasasin) stream, where they stopped next to a beautiful tamarind tree (sampálok in Tagá-log) later destroyed, where the priests received the animals intended for sacrifices, a very notable occasion in which Prince Tumangsil, lord of the Komirtan, offered a large number of carabaos with horns decorated with foliage and flowers, for which the site “The stream where those animals were purified received the name súngay (horn), which it still retains.”

"After that important offering, the descendants of Tumangsil continued to reiterate them every twenty years until the arrival of the Spanish, and as the total number of those acts (NOTE: The counts of the important events were noted on the back or on the pedestal of a copper or bronze idol (laráuan(.). It amounted to thirteen, a total of two hundred and sixty years, which takes us to the beginnings from the 14th century and the probability of being oneself the Tumangsil of the lam-pong tradition and the Domangsil established in Taal according to the codices cited in the first part of this appendix.”

“I will end this appendix with an explanation of how the ancient Filipinos computed events. They used to do it on the back or pedestal of certain idols of metal or hard wood, marking important events with a thick line and a sign and successive or intermediate years with small lines. With the conversion to Christianity, missionaries and neophytes competed in the destruction of idols and with. They disappeared the trace of the ancient rites... (Ob. cit., pages 371-72 and 374.)” (Underlinings ours). Yo

The data we quote from the 20 and 260 year cycles suggest that this entire account system arrived in America already formed from Indonesia. We have only found a single piece of information about this in F. Graebner, which tells us that the Javanese knew a 20-year “windu” cycle, and this is enough to see that the fact was quite widespread in Indonesia.

ancient Egypt, that there was a difference of one day every four years, which altered the count and differed from the passage of the seasons. With respect to the Valley of Mexico, we have a few references from chroniclers in which it is said that it was not adopted until the 15th century.

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THE REPRESENTATION OF THE UNIVERSE AMONG THE INCAS, ACCORDING TO IMBELLONI, in The “Welanschauung” of the Amautas reconstructed, etc., fig. 1. Imbelloni follows in this reconstruction, which makes the Universe a Cube, the description of the least knowledgeable of the case, the Inca Garcilaso, and at the same time assumes that the same Image was widespread among the Mayans, Aztecs, etc. The top of the Cube, A, would be Heaven; the lower one, C, the World Below or Hell; Between the two we have B, which would represent the inhabited Earth, divided into four sectors. We believe that this may have been a “religious” interpretation, at best, among the Incas but not “popular” since all indigenous people in Bolivia today tell us about a Round Earth (like a disk, not spherical). Undoubtedly this was not the interpretation of the Amautas, wise men, in the Inca Empire, since with it you cannot make any kind of astronomical interpretations, and Inca astronomy, as Huaman Poma says (mean hours and minutes) and as proven by the astronomical tower of Incallacta , which we have discovered, was as developed as that of the Mayans and Aztecs.

there is the leap year, and there is even more precise news about it in the Mayan region. Naturally, several types of calendars were used among the Mayans, including the tonalamatl, which they called tzolkin, and the lunar count with months of 29 and 30 days.

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Drawing from a pre-Columbian Mexican codex showing a creative couple at the time of t around 28 circles symbolizing the constellations of the identical lunar zodiac in America

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Illustration from the Vienna Code showing the Mexican “Atlas” holding up the sky, it seems
barba.

OVERVIEW OF HALF OF THE GREAT INCA TEMPLE OF INCALLACTA, C ochabamba, photo of the au
existing throughout America in terms of constituting a single ship, since it does not have divisions i

26 wide. Its gabled roof, although made of straw, must have been truly monumental.
supported by no less than three rows of interior trunk columns.

ANOTHER VIEW OF THE GREAT TEMPLE OF INCALLACTA, opposite end to that of the previous illustration; side, gabled and fifteen meters high, was demolished with dynamite to make treasures. On its front it has 12 doors, probably corresponding to the months of the year.

We will leave aside the explanations about the way the years were counted among the Mayans,

the long and short count, their cycles of 20 and 400 years, etc. Here we are interested in showing a

only basic fact, which is the lack of the leap count in its main calendar, and its consequences, as well as its identity with the "Vague" calendar of ancient Egypt.

ONE END OF THE GREAT INCA TEMPLE OF INCALLACTA, Cochabamba, Bolivia. Discovered by E. build by Tupac Yupanqui around 1470 AD. Although it is nothing more than a huge warehouse, it remains of all of pre-Columbian America in terms of constituting a single ship, since it does not have equinoxes. The extraordinary thing about this building is not its walls, or the remains that we gabled straw, since the construction measures 78 meters long by 26 meters wide, so that

world.

THE SUNRISE ON THE SPRING EQUINOCIDE IN INCA CITY, over a corner of the Gran
behind a mountain and more than an hour after its actual departure at ground level, having been made and calculated on the
exposed ground level, something impossible without extensive cones
trigonometry. It remains to study the details of this, which can shed a lot of light on science.

THE ASTRONOMIC TOWER OF INCALLACTA ON THE SUMMER EQUINOX, on September 23. In
quarter of an hour, the only illuminated angle, as can be seen, is the central one, while the other
has preserved intact the part that contains the five angles, which mark both solstices

meters by just over five high. Historically the population of the Era, so that in the last 500
years does not indicate a so

achieved Inca astronomy.

n of Incallacta would have been built by Tupac Yupanqui, around 1470, the day of error in the
calculations, and this shows the high development that had

THE ASTRONOMICAL TOWER OF INCALLACTA ON THE WINTER SOLSTICE. It is illuminated by the sun
go to the front, while the others are in the shadows. The opposite angle marks e
The date on which the two intermediate corners of this figure were illuminated is still unknown.
located about 100 km. east of Cochabamba, and today it is accessible by road in three

The ancient Mayans counted from an ancient zero
date, as we do from Christ. It must be clarified that counting
from a zero date is something totally historical in the Old World,
since before it was counted by the years of duration of each
reign, a system that

It is preserved in Japan. We know three ancient zero dates in
the Old World: the Era of the Olympics, that of the founding of
Rome and that of Nabonassar. We already saw that the Roman date

derives from that of Nabonassar, and it is possible that
that of the Olympics is an alteration of the same.

PLANT OF THE ORACLE O HEART OF THE COURT OF THE ORACLE

THE CENTRAL CIRCLE OF SAMAIPATA, INCA TEMPLE IN SANTA CRUZ, BOLIVIA. According to survey
Gisbert. Inca architecture in Bolivia, page. 152. Generally considered a lug
number of the seats on the outer edge, which are nine pointed and nine squared, or
that have the same width, we obtain the number 36, which corresponds to the deans of the
do. Naturally, the seats in the shape of triangles and squares are more representations.
dr, etc. See the Aztec Calendar.

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MAP OF SAMAIPATA, INCA TEMPLE, ACCORDING TO LEO PUCHER. Taken from J. de Mesa and T. Gispert, L
p. 150. Length of the plane, 160 meters. Explanation, authors' text: “A. -Steps is
jaguar E. -Suri (ostrich) F.-Altar with steps. G.-Seats-Standing. H. -Helmet torso
K.-Water container. L.-Fountain with animistic seats. M.-Source. N.-Priest Choir
Doors-Plazuela Norte. R.-Incognito carving. S.-Animistic seats. T.-Animisti doors
Grandstand. It is a cosmic-religious representation, and in this the circle N matters.

ma. The Mayan zero date indicates a much older date and,
precisely, this suggests that it derives from later accounts,
whose beginning, apparently, is located precisely in the Hellenistic era.
In the Bible there is no zero date.”

PROBABLE COSMIC REPRESENTATION IN A RECUAY POTTERY. According to Julio C. Tello, Wira Kocha, fig. 24. The author assumes that the central figure represents the Sun with a feline face, provided with luminous irradiations.
For us, comparing it to the central figure of the Aztec Calendar, the Etruscan lamp, etc., the central figure must represent the Earth, even though it is missing the hanging tongue; The ten small felines that surround her then immediately remember the Aymara calendar that Cieza de León tells us about, which had only ten months, like the primitive Etruscan and Roman one. The four condors can represent the seasons of the year.

The Mayans have left us numerous dated stelae, in hieroglyphic writing, indicating the date they were erected; but here there is a difficulty: the correlation of the Mayan counting system in their calendrical dates with ours is not clarified, and there are at least three different systems of interpretation:

1. Correlation A, by Spinden, which puts the zero point in the year 3,373 BC. C., and the end on April 12, 1536 (Julian calendar).

A PARACAS FABRIC, on the Peruvian coast. It shows 54 embroidered figures, of which 24 or We count the “incoming” figures on the sides, there are 28 in the center and 13 on each side, a calendar of a year with 13 months of 28 days. According to JC Muelle, Samples of ancient art from Lima. Lima, 1936.

2. Correlacién B, by Goodman-Thomp-son, which puts the zero point in 3,113 BC and the end in October 31, 1539 (Julian).

3. Correlation C, by Alberto Escalona Ramos, which places that date at 2,853 BC. C., and the end on March 11 of the Julia calendar

no, and March 21 of our Gregorian calendar, year 1543.

As can be seen, the difference between the three correlation attempts is 260 years between each one (product of making a combination between the divinatory calendar and the 52-year cycles), and a maximum of 520 years between the

extreme. This is too much of a difference, and things are still unclear.

Returning to the lack of a leap count, we see that, in the ancient Egyptian calendar, prior to the decree of Canopus of 238 BC. C., the leap year was not counted, and for this reason it is called a "lazy year" since it went back or went forward in the count one day every four years, so that at the end of a century there were 25 days. Of diference; The result is that, after seven centuries, the seasons marked by the calendar were exactly the opposite of those existing in nature. Things were getting worse

A COSMIC REPRESENTATION ON A DRACOMIAN PLATE? According to AR González, Art, Structure The author tells us: "Pottery glass, Culture of La Aguada, Ornithomorphic composition on the trophies, surrounded by an ophidian. Measures 120mm. high and 120 mm. the diameter of the mouth. It comes from La Aguada, Dto. Belén, Catamarca." Added to the author's interpretation is that feathers, the lower one 5 of them; that immediately recalls our expressions: the Seventh Surrounding serpent represents Time, and it has 16 undulations on its edge and They remember the four projections around the Earth, in the Aztec Calendar, and can re undulations can represent the hours of the day and together the 16 points of the horizon Vision.

CALENDAR REPRESENTATION ON A DRACONIAN PLATE? According to AR González, Art, Structure Author tells us: "Pottery glass from La Aguada, Department. Bethlehem, Catamarca. Composition of roses feline. Measures 100mm. high and 360 mm. diameter of the mouth. MLP Collection Muñiz B plate, the drawings on the edge probably represent the Time Serpent subdivided at 13 months of a Calendar of 28 days in the month and 13 annual months. The central figure claws, see cald. Aztec), and its lower end contains the five points of "Hell".

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new in order after 1460 natural years, which corresponded to 1461 of the vague calendar, also called the Sothis Cycle.

We clarify that what is mentioned is a numerical account, not an astronomical one, since the real length of the year is a little less than the quarter of an additional day in the year, and, therefore, three leap days must be eliminated every 400 years in our calendar. The astronomical correlation

It would be every 1506-1508 years, according to the authors we have consulted. We have learned to make numerical accounts, not astronomical ones, a subject in which we do not know enough.

The Egyptians have left nothing written about that Cycle of Sothis and its repetition every 1460 years; In fact, the existence of that Cycle is only indicated by a very pos- interior, which tells us that in the year 139 AD. C. the lazy year and the astronomical year coincided again, and this occurred every 1461 years in the lazy year count. That has been taken as an indisputable fact by all historians of the subject, but we say that there is no proof of it. We even have the fact that the account was made on the Julian calendar, and not on the real astronomical one, that is, it was not taken into account that the three leaps mentioned every 400 years must be eliminated. The result is that if the Egyptians counted the years, the (not exact) correspondence would occur every 1460 Julian years; If you looked at astronomical facts, that would occur every 1506-1508 years. There are, in fact, at least three Egyptian dates that indicate the correlation of the “vague year” with the real year of the seasons, but they have not been been, at least as far as we know, sufficiently studied.

We return to the Mayan calendars, in which

Leap days were not counted, and this is well indicated in the Mayan stelae, while, in parallel (as we just said about Egypt), other signs indicate the real date of the year through a lunar calculation. Then, according to the accounts taken from the Mayan writings after the conquest, the so-called Books of Chilam Balam, in the year 1543 after Christ, there were 73 days of difference between the year that did not count the leap year and reality, which which leads us to the year 1247 so that there is agreement between its "vague" years and the real astronomical count. Other facts give the same date in relation to the Valley of Mexico. Subtracting

From it, we can extract both figures of 1506-1508 years and the supposed Egyptian figures of 1460-1461 years. The accounts of the Mayan stelae

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They tell us that three complete cycles must be subtracted before the indicated date of 1247 after Christ. We could do many calculations, but it is enough for us to indicate that the same basic system existed in Egypt and among the Mayans, and that its first zero figure places us a little before 3,000 BC. C., for the Mayan account, and that the Egyptian date of 139 AD. C. seems very doubtful to us, since it does not coincide with the date on which it stabilized, when the leap count was imposed there.

We repeat that many calculations can be made to make these figures agree, but we are not going to do it now. We are more interested in highlighting that the lack of leap count existed for both the ancient Mayans and the Egyptians, and undoubtedly also in the first Sumerian solar calendar we are talking about, which produced the formation of large astronomical counting cycles. or number-a lies, i a |

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THE MAIN WAYS OF COUNTING WEEKS AND THE 365-DAY YEAR IN THE ANCIENT WORLD. Map horizontal: counting by weeks of 5 days, of ancient Sumerian origin; vertical lines: transformation of the previous shape. With both forms a year of 365 days is counted, originally leap account, first in Persia through an extra month every 120 years, then in Egypt transformed into a count of 25 6 26 days every 104 years it appears in Mesoamerica, then Mesoamerica as in the Andean region. In China and Polynesia the leap year is not counted by ut most perfect forms of the 365-day calendar with leap count.

delicious. Possibly, the first zero date of that account began in Sumeria when that solar calendar was created, a little before 3,000 BC.

C. and then it was "fixed" more than once. In India, for example, we have that the initiation of the current Age, the Iron Age or Kaliyuga, begins on January 20, 3102 BC. Counting from it three cycles of 1460 years, we find ourselves in 1278 of our Era, with little difference from the 1247 of Christ among the Mayans. There are also comparable figures in China.

It is now necessary to see the opposite of what was discussed, that is, the leap year count among the Mesoamerican indigenous people, and we have enough information about this. A quote from Escalona

Ramos:

"Clarifications. Until now it has been assumed that there were no intercalations of leaps, nor periodic corrections in the calendar; In reality, there were and they functioned with perfect regularity. To understand its mechanism, it must be kept in mind that there was a third system independent of the two that we have studied.

(which did not consider said modifications) and which, however, served as a reference for them. This was the one that suffered such modifications. It was formed, like the first, by a cycle of 52 years with a whole system of wheels of 260, 365, 18,980 (52 years) and 37,960 (104 years) teeth or days, and corresponding names.

“In this era the intercalation of the leap years was done, repeating the same day every 4 years; in which the solar correction was made, stopping counting 4 days in 520 Tunes (512.52 years; that is, 1 every 128.13 years) among the Mayans, and in 520 years among the Mexicans (that is, 1 every 130): a correction that was similar to that made by Pope Gregory, who changed the calendar date from October 4 to 15, 1582 by moving from a Thursday to the following Friday.

“It is necessary to keep this in mind, because this third system was the only one used by the Mexicans (it had been compared with the first), while the Mayans used the composite system, in combination with it.

“In the part that deals with the names of the days, months and gods, the starting point of the year for the Mexican people was given (July 23 Juliano) and for the Mayans (July 16 Julia-

No). This point was only fixed for this simple system or “reference system”.

“The exposed system remained unchanged in its operation and structure, although the Mayans, to fix times, instead of starting their calendar on the first day of Pop (0 Pop), periodically changed it to 1 Pop and 2 Pop” (Escalona Ramos, A.: Maya-Mexican Chrono-logy and Astronomy, pp. 82-

83).

What matters to us in this quote is that the leap year was counted, and they even stopped counting 4 every 512 or every 520 years, in a similar way to what is done in our calendar, eliminating 3 of them every 400 years. . When did the knowledge necessary to do that arise in the Old World? We don't know, but before commenting on it we will make another quote from the same author:

"1. The Mayan and Nahua peoples had several types of years, agricultural, ritual, astronomical-chronological.

2. The agricultural or popular one intercalated one day every 4 years, and the ritual 13 days every 52 years (that is, 26 days every 104 years in the Venus calendar). Hence the errors of the Spanish chroniclers who sometimes confused, in a single month, festivals corresponding to two different ones. After 52 years

(or 104, both calendars were again at the same starting point.)
(Ob. cit., page 154).

We see, from the above, two different ways of counting the leap: the common one, every 4 years, and the one governed by the cycle of 52 years, or its double of 104, in which 13 6 26 leap days were added, corresponding a 1 6 2 weeks of 13 days. For the first case, its direct antecedent would be the decree of Canopus, although it must be considered that, before it became official, it would already be known before; The indigenous Mexican chronicler Ixtlilxochitl says that the leap count was introduced in Mexico in the year 133 BC. C., although it is not confirmed by the other chroniclers. For the second case, the counting of the 26 days every 104 years, the only possible explanation seems to be that it is a modification of the Persian way of counting a leap month every 130 years, something that Alexander of Humboldt already pointed out.

We consider the

account for the leap year, but now we face a very important problem:
stop counting

a: leap every so many years; between us, three every 400 years.

We do not have, referring to the Old World, any direct information on astronomical studies that could have concluded that calculation; We think of Hipparchus, but we have no proof. On the other hand, we have concrete historical information, referring to nothing less than the Julian calendar. In its first constitution, the winter solstice began on December 25; the spring equinox on March 25, etc.; We use the rest of it without realizing it on the date attributed to the birth of Christ (and the Persian prophet Mithras), that is, December 25. Then, at the Council of Nicaea, held in 325 after Christ, seeing that a difference of four days had occurred in the calendar in relation to the solstices and equinoxes, December 21 was set for the beginning of winter, March 21 for spring, etc. Later, the changes that occur every 128-130 years were no longer adjusted by one day, and Pope Gregory XIII, in 1582, had to eliminate 10 days when reforming the calendar to fix things. At the Council of Nicaea, astronomical days were removed and in the Gregorian reform they were completely suppressed.

Something similar happened among the Mayans and Aztecs, but with a systematic correction and with full knowledge of the results of a much more exact measurement of the year than that of the Julian calendar. We already saw some of that in Escalona Ramos's first date. In each of the Mayan cycles of 512 years, or 520 among the Aztecs, there was a change in the Bearers of the Year, stopping counting four days in the calendar, and at the same time (it is complex to explain, we prefer to suppress it), the date of the beginning of the year was moved in one day. Between the

Aztecs, when they were conquered, on the day of the beginning of the year they had already run three
Times, but they were near the beginning of the quarter; among the Mayans, conquered more

Later, the changes of the Bearers of the Year were four, the last of them occurred in the same days of the Spanish conquest, around the years 1536 6 1543 (we do not know well), so that the Mayans managed to eliminate 16 days in your account.

Counting the Mayan cycles, three of 512 years gives us 1536 years, and subtracting this from the dates 1536 and 1543, gives us the exact date of the Era, and seven years before it. Counting four Mayan cycles, that is, 2,048 years, and subtracting from the same dates, we have the years, successively 544 and 537 BC. C., with which

We are located in the beginnings of the Persian Empire.

With the 520 year cycles of the Aztecs, we get a difference of a few more years. From what point zero did you start keeping that account? We are in the Hellenistic era, and at a time of astronomical knowledge in which the leap year was already counted. Most likely, this knowledge comes from the Hellenistic era in which some previous astronomical phenomenon (a notable eclipse?) would have been taken as the zero point as the starting point for the accounts that were made.

We will not solve these problems here, but we do say that it is clear that in Mesoamerica a type of astronomical knowledge was preserved that influenced the change in the date of the seasons established at the Council of Nicaea, without us knowing from historical data. -cos of the Old World where that came from. In America it was preserved in use, while in the Old World it was lost and it was necessary to remake it with the Gregorian reform.

Some time ago we read a paragraph that seemed strange to us, in the great work Mexico through the Centuries, by Alfredo Chavero, written nearly a century ago; The author, after explaining to us several Aztec calendrical reforms, made in the last centuries before the conquest, says:

“We want to note the strange coincidence that, by virtue of the various calendar reforms, it turned out that the Mexican year began on the same day as the Roman year, and that the intercalary year was added on the date corresponding to the leap year. But there was the difference that the leap years were in Tecpatl, and the Mexi-ca intercalary years were the calli. So the intercalation was done among the Mexicans the year following that in which it was done by the Europeans."

(Ob. cit., vol. I, pp. 728-29).

The Roman calendar referred to would be that of Numa Pompilius, which began on February 26, corresponding to the Nabona-sar calendar, as we already know. As for the fact that the intercalation of the leap year was made in the year following ours, on the same day: there is a difference of minimal importance and at the same time a maximum indication of a relationship, since the date is arbitrary and there can be no convergence. -gency with 365 possibilities against.

Another author who confirmed the same thing two centuries ago was the Abbe Don Lorenzo Hervás y Pan-

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THE FOUR AGES OF THE WORLD IN THE BIBLE, according to the Peruvian indigenous chronicler Huaman Poma d

directly with the Four Ages of Peruvian traditions that it presents.

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THE FOUR AGES OF THE WORLD IN PREHISPANIC PERU, according
to the fact that the first men were already considered farmers, the same is
true, contrary to our Greco-Latin tradition that places an Age of warriors, the
Fifth Age, or Inca, occurs.

a

a Huaman Poma de Ayala. The author in the first illustration looks like Adam
in the previous illustration; The following ages are progressive, d de Oro at the beginning of
the series. After the Fourth Age, the Auca-runa or

hard, who wrote a letter to Francisco Javier because it has not been found in America, it is
Clavijero on the occasion of his work Historia Anti- necessary to look for it elsewhere, as in

gua of Mexico, published as an appendix to the Asia or Egypt...

same. We reproduce two of its paragraphs, in the first of which
the author makes exact observations:

"The Mexican year began on February 26, a famous
day in the era of Nabonas-sarra, which, seven hundred and
forty-seven years before the Christian era, was established by the

"From here we had to conjecture that this calendar noon was not the work of the Mexicans, but of another more
enlightened nation; and pious of the month Thoth..." (Ob. cit., page 412).

SPECIES OF "DRAGON", in an obelisk in Chavín, found by JC Tello. probably repr
would mean the cardinal direction North, or "down" for the Quechua language. In front of his

fish (the East), an eagle (South, South) and a jaguar (West). The interpretation of those di

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THE SIGN OF CAPRICORN IN A MAYA PALACE. Za Yi Palace, Yucatan, Mayan civilization, sculpted on the upper frieze, which corresponds extraordinarily in its form to the fi
sign corresponding to our Capricorn, as pointed out more than a century and a half ago

grade
7

A SCIENTIFIC INSTRUMENT IN PRE-COLOMBIAN MEXICO. According to E. Seler, Comments on the Code
Illustration from the Nuttall Codex. The representation corresponds to calendrical gods and their graduates who appear in the central part. Its radii are 16 in number, so it does not c
It is probably a representation of the celestial sphere. Let us remember that the people

hours were 16.

This information, as well as Chavero's reference, has been completely forgotten by the most recent authors. The beginning date of the year, February 26, would correspond, in Mexico, to the calendar for agricultural use, not to religious calendars, which had different beginning dates. Once again: is convergence possible on a specific date, February 26?

We have another appointment left to make here, it refers to the Philippine Islands, more specifically to Luzon:

“...Prince Tumangsil, lord of the Komirtan...

“After that important offering, the descendants of Tumangsil continued to repeat them every twenty years until the arrival of the Spanish, and as the total number of those acts (NOTE: The counts of the important events were noted in the back or on the pedestal of a copper or bronze idol, laráuan) amounted to thirteen-ce, a total of two hundred and sixty years, which takes us to the beginning of the 14th century and the probability of oneself being the Tumangsil of the lamp tradition

pong and the Domangsil established in Taal according to the codices cited in the first part.

te of this appendix" (D'Almonte, Enrique: Formation and evolution of the Indonesian and Malayan sub-races, p. 372).

The reports are not complete, but there is a count for scores of years, that is, the Mayan katun, and 13 of them clearly form a higher count or cycle, although it is not explained that way, exactly the same as what happened in the New Mayan Empire, with its 260-year cycles.

5.—Astronomical science and Andean, Inca and earlier astronomical calendars and observatories.

Here we would have to begin by presenting, discussing and denying, a whole series of false interpretations that exist about astronomical knowledge and the type of calendar that existed among the Incas, which is supposed to be purely lunar, but we prefer directly present our discoveries about the

hull.

The discoveries we have made are

for

PAINTING OF THE FINAL EXTERMINATION OF THE FIRST AGE: Reproduction of the painting on page 4 v
The First Age of the World is represented, and in a special way the cataclysm that ended it.
respective. The original measures 20x28 cm. and it is painted in colors, like all the

It is the Atonatiah, or "Water Sun." The word "Water" is read at the right vertex and a cor
background of the scene. Note the drops suspended on each wavy edge: it is a co-character.

They want to represent water.

The image of the divinity that presides over this Age of the World dominates the scene; She is the water goddess. Below, a man and a woman sheltered in the hollowed trunk of a cypress tree, awewe
Deluge. The painting is completed by a man fleeing a flooded house and some fish, on the right side and the indigenous numeral 4008 on the left; then the recumbent figure of a man

tzocuitlicxeque, both as giant.

The next text comments: "This is the first age that they say, in which water reigns

according to his account, that age was 4008 years, and with the arrival of this great old man from Mexico who escaped from this flood, only one man and one of this age were giants in this country, of such astonishing greatness..."

They fundamentally refer to civilizations from Tiahuanaco and the Incas, but there are also some loose earlier data. Furthermore, there is no doubt that calendars and astronomical knowledge existed long before, even in the oldest manifestations of the Chavín culture, but we have not had enough material in our hands to identify it, nor have we been able to visit

the ruins of Chavín.
As previous materials to what I will deal with-

we here, we can quote: coming from the end of the Megalithic culture of Cochabamba, Bolivia, and with manifest influence of the culture

Sauces-Cóndorhuasi (which continues to Argentina and Araucania), exist in the Archaeological Museum.

deluge they say that men were transformed into fish... They say the pid of the nna, from which the human race was then multiplied... They were born in

It is logical that we gathered at the local University, three large, extremely finely crafted stone vessels: one of them is quadrangular in shape and the others are round; We assumed they were for religious use, and in any case they could not be for common domestic use due to the quality of the work.

When we began to develop the study of the Tiahuanacota calendar, it occurred to us to measure the interior size of the quadrangular vessel, and then draw it by drawing X lines from its ends, and we measured the angles of its minor openings with a quadrant. The result was that both gave us the same aperture, which corresponds to the aperture width of the solstices.

Then, in numerous pieces of ancient ceramics from the Peruvian coast, and in the Draconian culture of NW Argentina, there seem to be cosmic and calendrical representations. But to be able to study this well, it would be necessary to gather at least a few dozen illustrations.

We prefer to deal more with the facts already proven. Many times attempts have been made to find in the Puerta del Sol of Tiahuanaco the representation of some type of calendar, but with the exception of the work of Arthur Posnansky that we have cited, in the interpretations that we know,

We have always used a combination of fantasies and lack of knowledge that has led to rejection in principle of what was said.

However, Posnansky's interpretation could not be demonstrated until serious comparative material was available to confirm it.

masses.

The fabric existing in the Munich Museum, which we referred to at the beginning of this chapter, made this task easier for us: it has number 630 in the Catalog, and in it it is clearly described as a calendar. Measures 262 x 176 cm.,

END OF THE SECOND AGE OF THE WORLD: Painting of C. Vaticanus AN° 3,738 on page 6, which ends humanity in the Second Age. or Ehékatonatiuh “sun of Air”. The original measures 21.

Ruler of this Age is the god of air, life and the wind Kelzalkówall that descends green feathers. The inscription that accompanies him refers to his astral identification with the

The background of the painting would be white, according to Seler, but in reality the scene has no other

cardinal of this Age, yellow, appears in the spiral lines that indicate the vien
high, the calendrical expression of the month and day repeated in other parts of the painting,
“saved” couple, protected by a cave, and in the space where the hurricane rages a
transformed the other men of this Age. destroyed “per impeto di venti fortissimi, e

chiamano questa etd concuzerqué ie the golden age”.

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CATACLYSM OF THE THIRD AGE: Painting from C. Vaticanus A) N2 3,738, page 6 verse, which rep
to humanity of the Ill Age or Kiyawitlonatiuh “Sun of Fire”. The original measures 23x29.5 cm

The background is yellowish-red to indicate the rain of fire flakes. Regent of
of fire appear everywhere on the incandescent panel, and two flaming serpents limit it
They contain the sculpture known as the “Aztec Calendar.”

The “saved” couple is sheltered in a circular shelter of rocks; outside humanity
left (month and day), the numeral 4804 on the right “Fu'distrutto il mondo altra terza volta

Tzonchichiltrqué, which means the colored or red age”.

and is repeated in half on both sides. On the edges (one of them is
broken, the other whole), 12 human figures appear; On each of them
there are three rows of 10 little circles; In the description of the
Catalog this is identified with the 12 months of the year, each of which
has three weeks of 10 days, according to the description of the Inca
calendar made by the chronicler Montesinos. The fabric is widely
polychrome.

Below each of the 12 human figures that represent the months, little human heads appear, with the exception that in the third human figure (from the reader's left), six little heads appear. In the description of the Catalog it is assumed that that sixth

little head would represent the five remaining days of the solar year, in what an obvious error: each little head, in the other eleven months, has to represent six days to make the 30th of the month, and then, in that extra little head of the third month, there are to count six days, that is, the final five days of the year and the leap day, well pointed out, furthermore, by Montesinos.

We would then have a calendar of 12 months, each with 30 fixed days (non-lunar), divided into three weeks of 10 days, and, in the third month, the count of the remaining 5 days of the year, in addition to the count of the leap year. These features, and especially the presence of the 10-day week, show an undoubted origin.

probably Egyptian, derived from the Decree of Canopus due to the presence of the leap count.

We turn to the interpretation made by Posnansky on the calendar of the Puerta del Sol, published for the first time in 1918. According to him, the central figure of that Puerta would represent the month of September, with the beginning of the year in the

On its sides, arranged in three rows, are 30 masked human figures that would represent the 30 days of the month. There are 9 more of these figures on each side, but they should not be counted because they are a repetition of the previous ones, according to what we say below. Below the central figure of the Door

spring equinox, in the southern hemisphere; -of the Sun there is a frieze, a kind of fretwork

FOURTH PAINTING OF THE C. VATICANUS A) N? 3.738: The background of the scene is red-yellow compared to the previous one; in no way could one speak of a "pink color."

The indigenous numeral includes 13 large roundels with plumage, which are worth 400 ca units.
unit: total 5206 years. Regent of this Age is the goddess Xochikétzal, whose name appears in the rose. All the elements of this scene are analyzed in the Memoir of Imbelloni Rd
Father de los Ríos and the real and supposed "anomalies" of painting.

The original measures 20x29 cm. and covers the upper part of page 7 of the Codex. As to
known in Mexicanist literature, without including those of Kinssborough (1830): 1) he published them
National of Mexico volume I, 22 which C. Robelo inserted in his poem Los Cuatro Soles published
were made by the Mexican artist MAV Saldañas, 32 linear tracings that fi
Mexico through the centuries, Barcelona edition, and 4th the drawings published by Seler
more or less crude sketches, 44 suffers from excessive "calligraphic" simplification; free of defects.

Dr. Imbelloni has deemed it convenient, instead of photographing the above, il
under his guidance. Those inserted are the work of the artist Eduardo Ríos Ruckhauf. It is evident colors of the original: the ideal would be a photochromic reproduction. However, these
They are entirely suitable for our purpose.

The four plates that we present here, from the Vatican Codex A N23.738, present at their bottom
Imbelloni, which are partly debatable. First of all, Alexander of Humboldt with
which here is the fourth. But what interests us most here are the figures for the duration of the existing
indigenous numerals in each Plate; Those figures were translated by a Fr.
16th century, and all the authors have followed them without revising the indigenous numerals again.
Imbelloni, etc., is 18,028 years. But Fr. Rivers, no doubt out of Biblical scruples, dej
made up of large circles with crossed lines inside, which are worth
of counting 45 times 8,000, in total 360,000 years, which added to the previous 18,028 gives us
corresponds to our count of 1,000 human years (transformed into the Aztec count and
per divine day (figure cited in the Bible) which simply expresses that we are at the end

whose meanders are eleven solar heads, which would represent the remaining months of the year, each with 30 days. Said frieze ends on both sides in a large head of

condor directed upward, before which and above the corresponding solar head, is a small human figure with a bugle directed towards the central figure. According to

ASTRONOMIC INSTRUMENT OF MAYAN ORIGIN (?) USED BY THE ARAB. Drawing taken from the work Stephen Toulmin and June Goodfield, trans. of English. Ed. EUDEBA Buenos Aires, 1963; plate of an Arabic text that illustrates the persistence of the worship of the stars more than a thousand date, but it must be after the millennium of the Era. Import the astronomical instrument in which is identical to the astronomical instruments that appear in Mayan and Mixtec codices. classic. Is it another Mayan ebb that has arrived in the Old World along with the trifoliate arch, the cer instrument is very simplified and reduced to its symbol, since at least it had to be double p

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Popol Vuh and Cod. Cut.

TABLE OF THE LAST CHANGE IN THE ORIENTATION OF COLORS IN INDIA AND MESOAMERICA. Square the orientation of colors at an older time (which by the way was not the first) India (Persia in origin?) and that reaches Mesoamerica. In the previous era the position yellow and white are changed frequently; In the Bible, for example, the position dominates in the Popol Vuh, according to Imbelloni; In Mexico the same form occurs according to Charencey. The above occurs in India according to R. Guenón, but other authors indicate different positions to the North and the Black to the South. For Mexico the colors set are indicated by Sanagún, and Aztec calendar. The colors among the Mayans are those indicated, numerous times, in the fact that here there has been a diffusion of the last position.

Posnansky, these represent the two solstices, and the bugle call would be an indication or order to the Sun to return back, until the other solstice. Then begins another similar frieze, on which are the nine remaining figures (three incomplete rows on each side, which shows very clearly that the Puerta del Sol was still part of a wall), which should not be counted, as we have said, by be a repetition. The 30 human figures that must be counted are on top of the two men.

bres with the bugle, and correspond to the days.

Here there is a problem not solved by Posnansky, nor by us: the arrangement of the 30 figures that must be counted, and that correspond to the days, are distributed on each side of the central figure, forming three rows of five figures, which would be three rows of ten figures if we count them consecutively.

This can indicate both the existence. of weeks of five days, if we count them separately, as of ten days, if we count them together. Posnansky seems to lean towards the count of weeks of 10 days, and we did the same at first, but now the other possibility seems plausible to us: the count of weeks of five days (like the Mesoamerican and Sumerian ones), that undoubtedly existed in ancient Peru, according to the indigenous stories of Huarochiri, collected by Francisco de Avila in 1598.

The reading of the solar month-heads would be done, according to Posnansky, from the central figure to the right (personally we believe that to the left, but that is a secondary detail that we will see later), that is, to the left of the reader; the months of October and November would follow, above the frieze; to the

reaching the man with the bugle we would meet in December, with the summer solstice; then the reading would continue below the frieze and, below the central figure, the autumn equinox would be counted, and so on until reaching the other cornet, which would mark the winter solstice, from where the central figure would be reached again. counting above the frieze.

Posnansky did not solve (nor did he even try to) the problem of the final five or six days of the year; but they are very clear now by comparison with the Munich fabric: in

On the skirts of the central figure of the Puerta del Sol six little heads appear, as under the third month of the aforementioned fabric. Likewise, the central figure

of interpretation: the calendar of the Puerta del Sol begins, undoubtedly, on an equinox, which there is no problem in accepting is the spring one, as Posnansky supposes, but in the Munich fabric it is clear that the The beginning of the year has been transferred to a solstice, as shown by the position occupied by the six little heads in the third expressed month. We clarify that between the elaboration of the bas-reliefs of the Puerta del Sol and the figures of the fabric, there is about 500 years of difference: the Puerta del Sol must have been made

around 400 AD, and the weaving is from about 500 years later.

If we count the 12 figures of the fabric from the

DIVINATORY CALENDARS. The shaded areas locate the use (or existence) of ca corresponding directly with the solar years. Of ancient use in the first ethnographic. For example Yorubas in Nigeria and the island of Bali where it is currently used

two 7-year-olds that are also found in the Bible.

tral and the eleven suns (something that Posnansky did not interpret correctly), all have 24 rays, which have to represent the 24 hours of the day, according to the Egyptian model, which increased the 12 hours originating in Sumeria to 24. In other bas-reliefs from Tiahuanaco the oldest form of the 16-hour distribution appears, as occurs in the Aztec calendar. We will remember here that the ancient Etruscans and Romans, as well as the Hindus, counted 16 hours in the complete day, including the corresponding night.

A very important point now arises.

left of the reader, which is the right of the figure, the beginning of the year would have been moved to the winter solstice, that is, the count would begin in June (southern hemisphere); but if we count from the right, that beginning would be on the summer solstice, in December. There is no direct data to solve the problem, but in the account with five-day weeks of Huarochiri, the year began in June, and in the Inca reports to an ancient beginning of the year in June, the Inca Huiracocha-Pachacutec I would have transferred it to

December.

Regarding the astronomical knowledge possessed by the ancient inhabitants of Tiahua-naco, Posnansky interpreted the stone construction existing in Tiahuanaco and called Kala-sasaya, as an astronomical observatory, and called it the Great Temple of the Sun. The observations astronomical observations that he made, widely confirmed by the astronomer Rolf Miiller, are of fundamental importance, but unfortunately, instead of having been used for

demonstrate the character of that construction as an astronomical observatory, which was the most important thing, they were improperly used to maintain its millennial age of 14,600 years BC. C., according to Miller, who even went back a bit to the date given by Posnansky. This caused the discussion of the topic to focus on the antiquity of the Tiahuanaco ruins, and not on the construction's character as a solar observatory.

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A HINDU GOD WITH FOUR ARMS AMONG THE MAYANS. Bottom of page XXXIII of the Code
Courtesian. National Archaeological Museum of Madrid, according to Villacorta. It is the only one with four arms, as is the case with the gods of India. The two lower hands
ax and the other a torch. At his feet is a snake on a turtle shell.
Indra of the oldest India had as attributes especially an ax and a mace, or a
It is useless to emphasize the importance of this figure, which should be compared in detail with

The Kalasasaya is a rectangular construction with a surface area of just over one hectare, measuring 128.74 m. long by 118.26 wide; On its front, to the east, it has a large, almost monolithic staircase.
The enclosure consisted of a wall that surrounded this construction, marked by large sandstone pillars; This type of construction is Phoenician, and the supporting pillars receive the name in Spanish.

of rafas. The wall supported a pyramidal platform about three
meters high. Only the pillars (some very worn) and the foundations of the
walls remained of the Kala-sasaya, but it has recently been rebuilt
under the direction of Carlos Ponce Sanginés. In a second period of
Tiahuanco, an expansion addition was added to the back, called ''Balcony
Wall'' by Posnansky,

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Agnese de la Biblioteca Trivulziana de Milan (1556)

REPRESENTATION OF OUR ZODIAC IN “INVERTED” FORM, as occurs in the account of the di
According to R. Levillier, America the Well Called, volume II, page. 208. The author tells us at the bottom: (1536)”. The orientation is made
on the North, in perfect astronomical agreement of a West, the Spring is counted, then from Cancer the Summer, etc., according to the
movements.
seasons in the Northern Hemisphere. This figure is as if turned into a mirror with respect to the
a beginning of the year and of Spring counted towards the West, the setting of the Sun; in the Ast
beginning in the East, and as the zodiacal wheel moves, Aries must be below it
Pisces; Taurus follows further down, etc. It is an investment account similar to the one expl
Aztec Calendar, although without reversing the order of the signs.

made of andesite stone (much harder than sandstone) and some sandstone pillars were also replaced by others made of andesite. The Puerta del Sol is also made of andesite.

The character of Kalasa-saya as a solar observatory is undoubted: from a viewing point located to the west of the construction, the Sun appears at dawn, at the equinoxes, through the central part of the Grand Staircase and, at the solstices through the north and south ends of the same wall where the staircase is located.

If only for this detail, there is no doubt about its character as a solar observatory.

But there is even more: Posnansky discovered that the Grand Staircase is not in the center

same as the east wall, but is deviated by 116 cm. towards the north, which demonstrates the knowledge of the facts and the measurement of Aphelion and Perihelion (the difference in duration in the seasons of the year), something discovered by Hipparchus, in the middle of the Hellenistic era, in the middle of the second century before the age. Also, given the width of the front of the observation wall, there is no doubt that there, with the naked eye, at least minutes could be measured without difficulty, and this data places us in front of an astronomy of development no less than that of the Mayan.

But the Kalasasaya has two successive periods of construction, as Posnansky demonstrated, although not much attention was paid to it; In the first, which is the one we have described, the construction was made purely with sandstone; In the second, it was built with the hardest and most resistant andesite, which is stronger than granite. The first construction would correspond to times shortly after Christ, a century or so; the second about three centuries later and consisted of an arrangement and reconstruction of the previous building. The aforementioned “Balcone Wall” was then added to the west wall (see map or plan), and at the same time, inside the Kalasasaya, a a kind of “Sunken Courtyard”, a quarter the size of the Kalasasaya, which overlooks the great eastern staircase. The fact that the Puerta del Sol is built in andesite shows that it belongs to this second period, as well as some monoliths.

Now (and Posnansky saw this, although he did not fully explain it), by placing ourselves at an almost central point of the Kalasasaya, at the end of the 'Sunken Courtyard', we obtain the same measurements of the solstices and equinoxes that in the oldest large Kalasasaya, and, from there, looking towards the West, and thanks to the expansion of the “Balcony Wall”, the same thing happens from

from the same central aiming point; There, in this new point of view, is where Posnansky supposes that the Puerta del Sol was originally located, forming part of a central wall.

That is to say, in the second period of construction of the Kalasasaya, the solstices and equinoxes were measured not only at sunrise, but also at sunset, which is easier to do because there are normally fewer clouds at dusk than at sunset. sunrise. It also indicates a new and important astronomical progress: the measurement front of the apparent movements of the Sun on the horizon has been reduced by half, undoubtedly due to the improvement of peepholes that we do not know about. As for the Puerta del Sol, built at this time, it logically had to face the West, and not the West, as Posnansky assumed. For this reason, the reading of its months had to be done to the left of the central figure (right of the reader), contrary to what Posnansky assumed. Unless the central figure represented the month of the autumnal equinox, rather than that of the first

mavera

Another serious problem is whether the Puerta del Sol and its calendar correspond to the second period of the construction of the Kalasasaya. In the first period there must have been a corresponding monument, and possibly a different calendar. Although without any positive proof, we say

It is likely that it is represented by the so-called Bennett Monolith (made of sandstone), in which Posnansky tried to find the same calendar as the one that exists in Puerta del Sol. We have carefully reviewed his interpretation and our result tado does not confirm it, although we have not been able to understand it clearly; Rather, a completely different type of calendar seems to be found there, luni-solar, with alternating months of 29 and 30 days, instead of the fixed, non-lunar months of 30 days that appear in the Puerta del Sol. and in the Munich fabric.

We will now face the Inca calendar and astronomy. We have already said something about that: it is generally assumed that the Incas did not have any astronomical knowledge, and that their calendar was of a purely lunar type and with names for the months referring to agricultural work. In reality, almost all current researchers have impoverished what the chroniclers tell us, since Garcilaso himself, Polo de Ondegardo, Father Acosta, Father.

Cobo, etc., speak of the existence of towers or columns to measure the movements of the Sun: the majority of these chroniclers place these towers towards the West of Cusco, and they are always

several, not one, which indicates that the light and not the shadow of the Sun is measured, since a gnomon with marks on its foot is enough to measure the shadow. If several columns are used to measure the shadow, they all mark the same.

The best example of indigenous astronomical knowledge are the studies being carried out in Bolivia by Dr. Gregorio Loza Bisa, Prof. Maks Portugal, Ramón Sanzete-nea, etc., about which only a few journalistic reports have been published; The first two have found that the current Aymara-speaking indigenous people have names for more than 300 stars and about 40 constellations, without the zodiac appearing in it. Among the indigenous people of Cochabamba, who speak Quichua, there are similar foundations.

Some valuable data is found in the chroniclers. Polo de Ondegardo tells us the names of eight constellations that, unfortunately, he does not locate well; Garcilaso denies that the indigenous people knew the constellations, but cites four of them, especially "the Eyes of the Flame" (the two guide stars of the Southern Cross) that all indigenous people know today.

Garcilaso also describes what he believes to be the "measurement of the equinox" in considerable detail, but he is unfortunately confused, since what he describes is not the measurement of any equinox, but rather the passage of the Sun through the zenith of Cuz. co. This error is repeated by current authors, with a surprising lack of criticism and knowledge.

Regarding the Inca calendar, most chroniclers tell us about a lunar calendar (without any mentioning the necessary "intercalary" moons every two or three years); Others, even in fragments, present us with a purely solar calendar, such as that of Tiahuanaco, which would begin on the summer solstice (southern hemisphere), with fixed months of 30 days and weeks of 10 days. Juan de Betan-zos, for example, says that the Inca year had 360 days and, indirectly, cites the 10-day weeks; Huaman Poma is already confused by the information on the Christian calendar, but he keeps telling us about 10-day weeks; Father Bernabé Cobo cites the 30-day months, as well as other chroniclers. The only one who presents the complete Inca calendar to us is the now little appreciated F. Montesinos, who describes a calendar with 12 fixed months of 30 days, weeks of 10 days, five supernumerary days and the leap count. Everything is exactly the same as the Tiwanaku calendar and the Egyptian calendar of the Canopus Decree.

On the other hand, in the information of Father Avila

Regarding Huarochiri, although they lack a direct description of the calendar, there is a true superabundance of data indicating an older calendar with weeks of five days, and a beginning of the year at the June solstice, measured on a wall.

We return to what we have discovered and said at the beginning of this chapter. The astronomical tower of Incallacta, or rather, its remains, would have been built in the time of Tupac Yupanqui, around 1470. The remaining piece of it measures eight meters in diameter, and in its curvature it has five angles; It must have been covered with mortar and, undoubtedly, painted; In the central angle, at sunset on the equinoctial days (spring and autumn), the Sun's rays are reflected directly on it, leaving all other angles in shadow; On the solstices the extreme corners are illuminated, leaving the rest in shadow. We have not been able to verify the date on which the other two intermediate angles were illuminated. The time that the illumination of the respective angles lasts does not exceed a quarter of an hour, and we regret not having measured that duration exactly, because there they had to measure at least minutes; and Huaman Poma tells us about this measurement of minutes and points in Inca astronomy in a little-known paragraph of his work. The truth is that to study this topic well, a specialized astronomer is required.

The building or tower has been built 500 years, and in it the measurement of the solstices and equinoxes continues to be carried out with precision, on the exact astronomical dates, which demonstrates that the knowledge of the Incas on the subject was not inferior to that of the Mayans; That is to say, they were more perfect than those of our calendar, although certainly not than those of our current astronomy.

There is another Inca monument in Bolivia that has great importance within what we are dealing with; It is located in the well-known place called Samaipata, in Valle Grande,

Department of Santa Cruz, already described by

D'Orbigny. There is a large monolithic Inca temple there, sculpted in the rock with numerous figures; What interests us is a large circle dug into the rock, just over six meters in diameter, like a circular sunken patio; On its edges there are a kind of excavated seats, some square and others triangular, alternately; Their number is nine in each case, so there are eighteen, but we must also count the intermediate spaces between the “seats”, which have the same

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Aztec wheel of years taken from the work of Chavero Mexico through the centuries. Alred calendar signs: reed, flint, game and rabbit but they are in reverse order
We do not know the origin of this figure. On the outer edge the serpent of time.

width, so that we have thirty-six would inherit that calendar, and modify it spaces in total, that is, the number of the 36 as described.

deans. mentioned from the Aztec calendar, and from Egypt, and, consequently, the 360 round days of the year, with the same number of degrees in the measurement of the circle. The triangular seats are masculine, the square ones feminine, compared to the calendar

The conclusions that result from what has been said about the Andean region are the following: regarding the calendar, its oldest form in the Kalasasaya was probably luni-solar with alternating months of 29 and 30 days; that was modified in the second period of the Kalasasaya, when

Aztec. introduce a calendar of 12 fixed months of

Several of the chroniclers tell us that the Inca 30 days, with five additional days and the cue Huiracocha-Pachacutec moved the beginning of the leap year; those additional days were due this

of the Inca year from January to December, but by placed at the end of the year, before the equine
data from other chroniclers seems more pro- spring. Half a millennium later, it is believed that this transfer was made from a Munich
factory, the beginning of the winter solstice (June) would have been transferred to the beginning of the year to the winter solstice

summer, so it seems more likely that in the additional days they would continue as before, j
The Munich weaving calendar begins at the spring equinox. The Incas here-of the year were in June (therefore, the 5-6 days would give that, and then, in turn, transfers
extra would be left in September, the beginning of the year at the summer solstice, without
previous year of Puerta del Sol). The Incas know where the additional days were placed

end and leap year. The calendar with weeks of five days would also have existed in the Andean zone, although its development process cannot yet be located.

With regard to astronomical observatories, a whole process of development can be seen: at the time of the first construction of the Kalasasaya, a large building was needed with a front for measuring the apparent movements of the Sun of 118 .26 meters, to calculate the opening of the solar movements between the solstices, an essential magnitude to be able to measure the minutes with the naked eye; In the second period of that construction, the necessary size of the building to make the same measurement was reduced by half, while it was carried out mainly at sunset.

The Incas also inherited that system, but their buildings did not need to be more than about eight meters in diameter, as seen in Incallacta. Today we measure the same thing with a theodolite with a ten centimeter scope.

Each of these advances, we assume that the same as in Mesoamerica, was due to the arrival of new knowledge from astronomical development in the Old World. The orderly succession in which they occurred proves this sufficiently.

The latest astronomical knowledge reached pre-Columbian America by transpacific route can only come from the era of maximum splendor of Hellenistic science.

ca, as proven by the presence in the first Kalasasaya of Tiahuanaco of the discoveries made by Hipparchus on the Aphelion and Perihelion, and without forgetting the perfection of the Mayan calendar. Only the Hellenistic scientific mission of which we have spoken could have brought such a degree of knowledge to America at that time.

6.—The Four Ages, the Four Elements, the points of Orientation, the Cardinal Colors, etc., and the days in the Aztec Calendar.

In all of this work, this is where we have to make a greater effort to condense the reports that we have, which is why these pages are not easy to understand on a first reading, and at the same time, we confess from the beginning that we still lack information on many important points.

First of all, we will deal with the Four Basic elements conceived by ancient science, which differ greatly from our

current conception of them. In Greece they were first described by Empedocles, who took them from Persia, perhaps through the Phoenicians. They existed long before in Mesopotamia, although its direct description has not reached us. These elements are fire, air, water and earth, with the variants that fire is light, and air is wind. Plato and Aristotle added a fifth element to them, ether, which evidently also existed long before. The basis of its conception is the recognition of the Center among the cardinal points, the other four elements corresponding to the four basic points of the compass.

The notion of those four elements was widely applied to the classification of other facts, such as the four humors of men's temperament, the four qualities, the four seasons of the year and, especially, the classification of the past into Four Ages. At the same time they were related to four colors, that is, fire was red, air yellow, water white and earth black.

The basis for this classification existed long before in Greece itself, since we find it in Homer and Hesiod, although not described "scientifically" as Empedocles did. The elements were also related

They were matched with the Four Ages of the World's past, and were assigned a color. These Ages are well known and are summarized in the following:

Golden Age = air = yellow.
Silver Age = water = white Bronze Age = fire
= red Iron Age = earth = black

From the beginning it is evident that the order of these Ages is altered, since the ancient writings that describe them come, naturally, from the Iron Age, the fourth, in which the author was supposed to have lived; but the first origin of the classification in Four Ages is undoubtedly prior to the Iron Age (perhaps from the same beginnings of the Bronze Age), and for the same reason this description of the Metal Ages is a much later adaptation, made when iron was known, and arranging them according to the value given to metals; Originally, they must have had no relationship with metals. We can remember that, in the Mesopotamian tradition, water is the first element, and in the Bible water and air existed from the beginning; then it was-

light (equivalent to fire), Heaven and Earth were created. In this case, the order of the four elements would be: water, air, fire and earth, which would move the Golden Age to second place, instead of being the first.

The notion of the existence of these four elements

ments is possibly an adaptation made on the recognition of the four seasons of the year, and even before that, the four ways in which the lunar process occurs; but we cannot study those remote origins here. The fact that is known with certainty is that the knowledge of the four elements, always the same, in the middle of the last millennium before our Era, was already distributed throughout

Mesopotamia, Persia, Greece, Egypt and India.

Around that same time he must have reached Indonesia, and from there to America, where the chroniclers give a detailed account of it with respect to Mesoamerica, while with respect to the Andean zone we only have vague references about his knowledge. The four Mesoamerican elements

They are exactly the same as Empedocles.

However, in China they are different. In the first place, there are five, without ether appearing among them; We assume that they were developed on the same basis, with a series of local modifications, while they were related to another series of things, as we can see in the following table:

East = green color = wood element = spring = dragon animal
South = red color = fire element = summer = bird animal

Center = yellow color = earth element =... =...
West = white color = metal element = autumn = tiger animal North = black color = water element = winter = ... guerrero

Vulture

Calendar

Cipactli Mono

Azteca

Death

Eagle

Babylon—
Ezequiel
Gospels

Lion Bull

Ange! and man

BEGINNING EAST AND SOUTH ORIENTATION

Ave

Dragon Tiger

Guerrero

Vulture

Ibis _ **Egyptian Money**

Hellenistic

Snake

THE “ORIENTATION ANIMALS” OF THE “PREVIOUS” FORM OF THE MESOAMERICAN CALENDAR AND SOME COMPARISONS. Counting the series of days of the Mesoame calendars inverted immobile position, as we explain in the text, a series of possible comparisons appear

a first sample.

The elements of wood and metal do not exist.

but in China, while the air or wind element is missing there, so the difference with Mesoamerica is complete, despite all the comparisons that have been attempted to be made between Mesoamerica and China. We repeat that the four Mesoamerican elements are the same as the Greek ones. On the other hand, the relationship of the elements with the seasons of the year, which appears in China and which we had but have lost, was preserved in Mesoamerica, and this will allow us to clarify some important things, the same as the Chinese orientation animals. .

Whether it is counted by moons or by the Sun, the circulation of these stars in the northern hemisphere must be measured according to the position of their shadows, putting south above and north below, and this happens in all ancient civilizations. of the Old and the New World. The south is the day (noon; we say), and the north is the night (in Spanish, we have lost the word midnight corresponding to north, which is preserved in German). The south is normally assimilated to the color red and the north to black or dark blue. Later, these notions came into conflict with the facts resulting from the seasons in the northern hemisphere, since there, when the Sun travels north it is summer, which must correspond to day, and when it goes south it is winter which enters naturally at night. With that, the colors had to change position, producing real chaos in some parts.

We move on to another point that should be clarified before continuing. The Kógi indigenous people of northern Colombia, according to studies done by Reichel-Dolmatoff, give us valuable information. They would correspond, in origin, to a mega-xilian or megalithic cultural level of culture, but they have later influences, including the Mesoamerican calendar of 18 months of 20 days, a unique case in South America. They also exhibit many matriarchal survival traits; They face west, and the right (north) is feminine, the left (south) masculine, contrary to what is always said about matriarchy.

The east and south (back and left) are masculine and have, respectively, the soft colors of the day and the Sun (the Sun is white and the yellow moon in the first civilizations of the Old World), and the red of the earth (left), while the west and north (front and right), are feminine, with the colors black and light blue. greenish (the last, substitution of yellow); the west is the side of the night and water, in opposition to day and the Earth. The Universe is the interior of the matrix of the Great Mother, which is shaped like an egg; Inside it there are nine successive lands, and we occupy the central one, which is shaped like a flat disk. With all evidence, this conception is the previous form of the turtle egg, on whose yolk we live.

We care now only about one detail of that Image of the World. The Kógi have the custom of counting with the number nine, despite the fact that their numerical system is vigesimal. The detail that matters to us is that the Kógis believe they are in half the time:

*...We, the Kógi, have already lasted nine centuries. In a century we will be halfway through life and we will be halfway there. Then another thousand years will come and then the four men will be old. Then the world will end" (Reichel-Dolmatoff; R: The Kógi, p. 243).

The "four men" are four atlases that support the world at their ends; But what matters to us is that the Kógis believe they are almost in half the time, and this gives rise to a series of comparisons.

Among the Dogon, in Africa, south of the Tiger bend, we find the same thing, but reduced.

change their number to eight instead of nine); Furthermore, the Dogon, like the Kógi, have a rich conception of the Universe, full of later influences, while at the same time they know iron. They also believe they are in the middle of the

time:

****...Next to it there are 8 stones, representing the 8 mythical predecessors that serve as seats when the Hogon holds judgment. The total arrangement of the standing stones reproduces the large constellations, especially Sirius and its group. To the right of the entrance is the hearth, where the beer is made; a row of 8 stones represents the Hogon of the future…" (Griaule, M., and Die-terlen, G.: The Dogon in African Worlds, p. 163).**

The Hogon is king, but what matters is that they are placed in the middle of the time. They also have the four classical elements, etc.

Let us now see some references, without the need for citations, on the brahmanical doctrines referring to the legislators called Manu:

seven of them have passed, the seventh being the author of the work Laws of Manu. Another seven will come in the future, making 14 in all, and their relationship to the divinatory calendar need not be emphasized. All of this, furthermore, does not correspond to the recent Hindu doctrine, since it announces to us, like the Apocalypse, the coming end of the Universe, since we are at the end of the Iron Age.

When we enter the beginning of the storyria, things have completely changed compared to the time we are in. It is evident that this change was produced by a development of astronomy and the calendar, or, rather, thanks to their "convenient" use by the then already developed priestly bureaucracy, which took advantage of this knowledge to put a threatening "moral brake" on believers: indeed, it was changed to

completes the concept of the time in which we live, and we are no longer in the middle of time, but at the end of it, and there are very few years left before its total destruction occurs, as announced in the Apocalypse, number -these works from ancient India and, in America, several of the relations of the Chilam Balam and Mexican sources.

Calendrical ideas and large numbers operate there, mythical in any case, probably originating in the astronomy of the oldest Mesopotamia, from where they would spread. Its basis consists of assuming the existence of Four Past Ages, each one identified with the predominance of an element and, at the same time, identified with a season of the year. This was studied quite clearly by José Imbelloni, and summarized better by Prof. Orta Nadal, but his interpretation was incomplete in several points (Imbelloni died, unfortunately, before finishing his work), and especially in one fundamental: he could not clarify the duration of the Divine Years, because he had leaned towards low figures of antiquity; That is to say: the supposedly historical figures predominated in him over the mythical ones, despite the fact that he pointed out that danger.

However, things are quite clear: one God day was equivalent to a thousand human years.
At first, the allocation was only 100 years, but they reached 1,000 and even more. In the round year, 36,000 and 360,000 human years are needed, respectively, to form a Divine Year, which includes the Four Past Ages and which, in turn, correspond to the Four Seasons of the Divine Year. Almost everything

This can be found, more or less well interpreted, in various works.

But what has not been clarified until the present is the fact that the Fifth Age we are in corresponds only to the final five and a quarter days of the Divine Year; That is to say, from their point zero, the World has a duration of 5,250 years left. That is the zero date from which the Mesopotamian, Egyptian, Hindu, Chinese and Mesoamerican. A zero point located around the year 3,000 BC. Before the Four Ages have passed

of the World, which comprise the 360,000 Divine Days of the round year.

Nor has the obvious fact been studied that, in a later period, there was a reduction in these figures, apparently originating with the doctrines of Zoroaster (in any case, ancient Persians), where the total figure was reduced to only 12,000 years. humans, of which six thousand would have passed in the creation, another three thousand would be the human past and we would be in the last three thousand years of the existence of the World. Here the millennia would be months, not days, of the possible year-long duration of the Universe. These figures influenced the Bible, even though there it is said that 1,000 years are like a day for God, as well as in India, but there, once taken from new figures, they were again multiplied by millions.

Both types of figures arrived in pre-Columbian America, first the high ones and then the low ones; The basic figure of millennia = days of God, appears both among the Mayans and in the Valley of Mexico (Vatican Codex, although there they claim to find only 18,028 years), although with the difference that the millennia have been increased slightly to 1,040, that is, 20 times 52 years of the local cycles. On the other hand, the most recent figures are smaller than those of the millennium, generally: 13 x 52 repeated four times, 52 x 52. On the other hand, in the Peru of the Incas, the figures of 1,000 years are preserved complete in the cro -nista Montesinos, and almost the same in Huaman Poma, although Huaman Poma also tells us about two million years.

As we see, with the reduction of the figures, the Ages were reduced to four and we are in the last of them, instead of being in the fifth of the previous era, something that Imbelloni nor the others and numerous researchers did not see. dores of the case. From this reduction to Four of the Five Ages, we get the Four Ages-metals (Gold, Silver, etc.) of Greece and the

India, but in Hesiod himself it can be seen that in his third age two

Different ages. This is also intensely reflected in some Mesoamerican chronicles.

Until now all the researchers we know have assumed that the conception of the Four Ages is prior to that of the Five

Ages, due to a falsely “evolutionary” misinterpretation, which suggests that things are increasing in numbers.

mere.

We are now concerned with the fact of the succession of Ages=Seasons=Elements and their respective colors. Much has been written about it for two centuries, A. de Humboldt being one of its precursors; Almost all of Imbelloni's latest work also deals with this, but the problem is very complex and poorly clarified.

We have already seen that the succession of the Ages=metals of the Greeks is altered, by the presence of the metal iron among them, to which the color black corresponds (although iron is not black, and in rust state is red); But if we replace the metals with the elements, we see that the iron must be replaced by the earth, and then we can try to see if the original succession has been preserved. We would have:

"Golden age
Silver age

Bronze Age
Iron Age

= Air element

= Water element = Fire
element = Earth element

Now we can see again the picture presented before about the distribution of elements in China, which we have to assume does not go back to the origins of that civilization, but, at most, to the middle of the last millennium before the It was, although it can reproduce older features. Surprising things appear: the water is black and corresponds to the north and winter, just as the Earth is yellow there, etc.

It is these “surprising things” that shed the first light on the problem, and the first of them is attributing the color black to water, and the second striking “incongruity” is relating winter to the north, when In China, which is in the northern hemisphere, summer occurs (as in Mesopotamia and Greece, etc.), just when the sun is towards the north.

We anticipate what we say, to clarify things from the beginning: what was counted in a previous era was not winter and summer, but day and night. And so, the north was night, and therefore black, and the water received that black color to correspond to the night, to the beginnings, to chaos, the Apsú

= Spring
= Summer

= Autumn

= Winter

Things seem to become clearer, but they are not; On the contrary, they become more complicated. The order of orientations indicated may also have been the reverse, that is, west for spring, following north, east and south. Furthermore, the Golden Age, like the first Age, is suspect, since it appears as a product of philosophical speculations about a first Edenic stage of humanity, and that did not exist among the oldest Sumerians or in Mesoamerica, in where the first humanity is presented as a primitive people of gatherers. In the Bible we also find the Four Ages, although three are diminished in importance in favor of what is evidently the second there: Water = Flood. The other ages are: the expulsion from Eden, the dispersion at the Tower of Babel, and the destruction by fire of Sodom and Gomorrah. The events are as altered as in Greece, although in a different way: fire occupies last place. In Mesopotamia, water occupies the first place, and is the primordial Chaos.

in Mesopotamia. And the south was red. It is manifest that the colors of the elements in Greece were altered by rationalist thinking, which had already lost or changed the direction assignments.

What color was Adam, made of earth, according to the Bible? Few realize it: it was red, according to what its name itself means, a variant of the word that means Eden and South in the Semitic languages, as can be seen in the name of Aden in southern Arabia.

So, the color of the Earth is red in the Bible, as among the Kógi.

We would have to expand more on this topic, but we will leave it for another time.

The idea that the Earth corresponds to the south or east is the original one, but it was later moved to the north and west, due to new religious ideas, and was identified with night, when before it was day. This interpretation is already dominant in the historical data we have.

We learn about the first civilizations, both in the Old and New Worlds. But the idea that the south was the Above, the Day, and the north the Below, the Night, was preserved much longer, until the full development of the compass.

When did the year start? There is data on this from Mesopotamia and Egypt from the third millennium BC. C. In Egypt it began on the summer solstice, in June; In Babylon the beginning of the year was counted at the spring equinox, which had the color yellow (we preserve that in the phrase of the "Golden youth" and it was transformed into green in some places, such as in China). ; then, summer merged with the notion of day was considered as the daily movement of the Sun (contrary to astronomical reality) at the zenith (south), and acquired the red color at the same time that corresponded to the adult man; Autumn was assimilated to the white color, typical of old age, in the West, and winter was assigned the black color, typical of death (although in many towns the white color is preserved as that of death and death). mourning), from which a new spring was then produced. We observed that before, white should be the color of spring and the east, and yellow of autumn and the west, of which there are traces in our language, in the reference to the color of the leaves in autumn, and childhood as an age of white innocence.

As we see, the colors changed their position several times, but now we are interested in a final change that is important because of the diffusion it had, and that reached the Mayans and Aztecs. The change was due to the fact that the summer solstice began to be counted in the north, with its natural religious repercussions. With this, the account was done backwards. Before, the relationship was made in the following order: east, south, west, north, following the order of day and night. Then it was done according to the year: east, north, west, south. With this change it seems that in Egypt and Greece the color red moved to the north and black to the south, but in India it was where it had its greatest expression. There the brah-mans had the white color, which locally corresponded to the east, the chatrias or warriors the red color typical of the south; the vaysias, peasants and merchants, the color yellow, corresponding to the west, and the sudras or servants the color black, the north side and death. Here the Brahmins already occupy first place (the Chatria had it before), but the order of orientation is still counted from east to south, etc.; then, without us knowing the date, it occurred

a change, which we can see well in the following

quotes you:

"...In India, the Brahmins occupied the north, the Kshatriya the east, the Vaisya the

south, and the west sudras,..." (Guénon, René: Fundamental Symbols of Sacred Science, page 87).

With that, the position of the colors was altered, turning a quarter towards the north, placing summer and light there, but things became very confused, since the country of the dead (which was previously in the north)), began to occupy the south (instead of the west), placing Yama, the Hindu God of the dead, etc. there. It is evident that things were not assimilated well and completely. This transformation seems to have occurred in the Old World somewhat before the middle of the last millennium BC. C., and is evident in Persia, India and even in Gaul and reaching America in its definitive version. It is not appreciated in China.

In Mesoamerica we have several representations of the colors of direction in complete agreement with the oldest Hindu form, and then the change appears in complete form, even higher than in India; This can be seen both in the Mayan books of Chilam Balam and in various Aztec sources, where this new distribution of colors appears. I have

Here is a quote about it:

"2 d).—Landa's reports confirm the Mexican data.... The colors are Chac (red) to the E.; Zac (white) to the N.: Ek (black) to the W; Kan (yellow) to the S. The Chumayel manuscript gives these same colors" (Esca-lona Ramos, A.: Chronology and Astronomy Maya-México, page 50).

We see here that the position of the colors and their orientations is identical to that of India, but it is more elaborate, since it is counted in reverse direction: east, north, west, south, in

so much so that in India it continued to be counted as before, although starting in the north.
Another quote from the same author, pp. 49-50:

“... but E. Thompson deduces from the manuscript Historia de Colhuacán y México, that the north was associated with white; He also observed that yellow is characteristic of Mictlantecuhtli and therefore belongs to the south, and that red is the hair color of the Eastern Sun. The other colors that this author finds in the musicians dedicated to this star in the Annals of Cuauhtitlán are white, red, yellow and green; Comparing them with what is given by Sahagún, it turns out that the surplus black must correspond to the center, among the Méxica. In short: red to the east, white to the north, green or blue to the west, yellow to the south”*

The correspondence with the transformation produced in the Old World is total, since

There is even the transfer of the God of Death (Mictlantecuhtli) to the south, the same thing that happened in India with Yama; Both previously had their position in the north, of which there are many reports from the Valley of Mexico. The presence of a final and quite recent influence of Persia, more than India, in the aforementioned transformation that occurred in Mesoamerica, is evident.

Other Mesoamerican materials, and a few Andean ones, give us different forms of orientation, which may be older remains or recent local alterations, but, from what we have said, we believe we have clarified quite a bit the process produced in its last stages.

Let's go back to the Aztec calendar. Let's start now with your orientation. From Mesopotamia and India, with their derivatives among the Hebrews, etc., we have two main points of orientation: the sunrise, as an ancient form, later partially replaced by the north. We have the same reference points: the sunrise and the north, by the compass. In Egypt, on the other hand, the first or oldest orientation is towards the south, and a derivation of it is what has predominated in China until today; Subsequently, an orientation towards the West developed in Egypt.

The Egyptian forms of orientation seem to have been the predominant ones in America, although these latter influences brought orientation to the north.

The basic orientation of the Aztec calendar is to the south, possibly somewhat to the SW, and the triangular point that exists above the central head, the Earth, is generally recognized as pointing to the Zenith (although it is sometimes located to the north instead of towards the South). On the sides of that central head, arranged in the shape of an Inside the quadets there are figures that represent this, and they are: a tiger head (earth), a head with the mask of the god of air (air), a head of the god of fire, and the goddess of water on A vessel. The order in which they should be read is under discussion, as is which one comes first and which ones follow it.

Furthermore, there is the problem of its relationship with the count of the days, of the 20 days, which represent the Moon and which rotate immediately after them, and whose count at the historical moment of the conquest, began with the ter -cer sign of each group of five of them, gru-

because they formed weeks of five days, so that the count began in the middle of each week. This applied to the counting of years, like our old Sunday Days. Here we have no choice but to put the names of the days in Aztec and their translation, clarifying from the beginning that the Toltecs began their account of the year with the day Técpatl, the recent Teotihuacans with Kalli, the Texcucanos with Acatl, and the Aztecs themselves or Mexicans with Tochtli. In these quadrats, the figures corresponding to these signs, due to their immediate relationship, are: for Técpatl, the jaguar head; for Kalli, the mask of the wind god; for Acatl, the vessel with the goddess of water, and for Tóchtli, the god of fire. At first it would seem that the relationship could be easily made, but the existing interpretations, all of which disagree with each other, refute this.

The 20 Aztec days are as follows:

1.—Cipactli, species of crocodile

2.—Ehécatl, wind

3.—Look, casa

4.—Cuetzpallin, lizard

5.—Cóatl, snake

6.—Miquiztli, death

7.—Mázatl, deer

8.—Tóchtli, rabbit

9.—Atl, water
10.—Itzcuintli, dog 11.—
Ozomatli, monkey 12.
—Malinalli, twisted grass 13.—Acatl,
reed 14.—Océlotl,
jaguar 15.—Cuauhtli,
eagle 16.—Cozcacuauhtli,
vulture 17 .—Ollin, movement,
tremor 18.—Técpatl, flint knife 19.—
Quiáhuitl, rain 20.—Xóchtitl, flower

We know a multitude of interpretations about the seasons, elements and colors, on this list of 20 names of the days and the four figures of the quadets, but they are so different from each other that it is not possible to consider the problem solved; Furthermore, most of them are impossible a priori, as occurs in the following quote from the prominent Mexican researcher

Alfonso Caso:

“Colors and cardinal points.

“The colors, the cardinal points and the associated animals are distributed in the tonalpohualli as follows:

“The east is represented by the color yellow and the eagle; corresponds to the Acatl years;

The gods are Tonatiuh and Xipe, that is, Tiat-lauhqui Tezcatlipoca; the north is represented by the color red; The associated animal is the tiger and corresponds to the Tecpatl years; the god is the black Tezcatlipoca. The west is represented by the color white; The associated animal is the snake, it corresponds to the Calli years and the gods are Quetzalcoatl or Tlahuizcalpantecuhtli, the Cihuapipiltzin and the yellow or white Tezcatlipoca. The south corresponds to the color blue, the associated animal is the rabbit, and it corresponds to the Tochtlil years, the god is Huitzilopochtli, that is, the blue Tezcatlipoca. There are, however, variants in relation to the colors that correspond to the cardinal points” (Ca-so, A.: The Mexican calendar, page 61).

This synthesis is arbitrary, because an attempt has been made to bring together in a single interpretation a series of data from different cosmogonic ideas, as if everything corresponded to the same one. Several of its contradictions are obvious: we can notice the fact that the author uses, according to his need, the signs of the wheel of 20 days or those of the four quadets, as occurs with the first sign. , Acatl, where he “forgets” that the corresponding quadrat belongs to the Water sign, at the same time that, in the list of days, the Water sign occupies number 9, next to

Rabbit; The same thing happens when he describes the north, where he mentions the tiger or jaguar, referring to the corresponding quad, but it happens that in the 20 days the jaguar is the 14th sign, which is before the eagle, and corresponds to the previous quad, and also joins there the color red, which is attributed to the north along with the black Tezcatlipoca, in the west the white color is placed first and next to it the yellow or white Tezcatlipoca, etc.

We say the same about other interpretations that affirm that the sign Calli, house, corresponds to fire, since the home fire is lit in houses, and that the sign Tóchtli corresponds to the earth, since the rabbit is an animal. terrestrial (and the tiger, we ask?), etc.

Furthermore, all the authors have forgotten, as far as we know, the fact that the days have run three times, so, if there is a relationship between them and the quads, we would have to try to establish it with the first four days originating from five-day weeks, that is: 1, crocodile or sea monster: 6, death; 11, monkey and 16, vulture. They have also forgotten, and this is fundamental, that we are in the Fifth Age, and this is called Nahui.

Ollin, and it happens that the sign Ollin has the number 17 in the series of days.

To us, this indicates that the entire count of days has been reversed. It turns out that, in principle, this has already been seen and said by Humboldt, Graebner, Kirchhoff, and other authors about whom we would have to discuss at such length that it is impossible for us. This inversion was especially noted when comparing the names of the animals of the Mexican and Mayan series of 20 days, with the similar series of 28 animals from East Asia, China, India and Indonesia.

We will try to clarify here only one basic point of the problem. In the wheel of days of the Aztec calendar, the sign Cipactli occupies the zenith and south (which was Above, noon). At the same time, if the wheel of days moves, as we maintain, it happens that on the second day of the month, that zenith is occupied by Ehécatl, the third is occupied by the sign Calli, etc., the days moving in the same direction as the Sun, just like the hands of our clock when we set it, as it should, facing south (if we set the watch facing north, the hands move in the opposite direction to the sun). If we placed the Aztec calendar facing north, the days would move against the solar movement, which is very unlikely. We clarify again that the south and north orientations mean a beginning of the year in a solstice and the east and west in the equinoxes and that the fact of starting the day at twelve in the morning in the Aztec calendar is equivalent to what happens in our Astronomy and Astrology, not in the clock.

Now, in a remote era, when the succession of the 20 days and their names was already established in Mesoamerica, but the leap was not yet counted, the year had to begin on an equinox (long before the construction of the Aztec calendar; several centuries before the Era); So, the wheel of days should not begin at the zenith, but in the east, without moving, and the Cipactli sign should be there, at dawn, not at 12 noon; Since that wheel did not move, the days would be cut on it motionless, in the opposite direction to the current one, that is, starting with Cipactli, and continuing through Xó-chitl, Quiáhuitl, Técpatl and Ollin. Thus, the fifth day of the first week would correspond exactly to the Fifth Age: Nahui-Ollin.

Even more important is the following: if, separating it from the Aztec calendar, we place the wheel of days with Cipactli towards the east, spring, it happens that we have exactly well placed the other three signs of the beginning of

the five-day weeks, on an inverted account, while their orientation agrees with an innumerable series of animals

Similar orientations that appear throughout the Old World, both in Asia, Europe and Africa, without forgetting Indonesia. The count is made from east to south, west and north.

In summary, and as a first comparison, we would have:

To the east: spring; ox in ancient Babylon; Cipactli, crocodile or sea monster in Mexico; dragon in China.

To the south: summer; eagle in Babylon; vulture in Egypt; Cozcacuauhtli or vulture in Mexico; bird in China.

To the west: autumn; lion in Babylon; monkey in Egypt; Osomatli or monkey in Mexico; tiger in China.

To the north: winter; man = mortal in Babylon; Mizquitli = death in Mexico; warrior = death in China.

We could multiply the places mentioned, including northern Europe, the Bible (which basically reproduces the Babylonian events), some data from Peru, etc.; but we believe that it is enough. The Makara of India and our Capricorn are the same thing as Cipactli, but they have been transferred to the North.

The distribution of the elements-colors in the Aztec calendar would look like this:

South: wind or air, yellow; east: fire, red; north: water, white; west: earth, black. It is the same as the last distribution of India and that which appears in the Mayan Chilam Balam.

We interpret that the invention or discovery of representing the days with a moving toothed wheel is related to others that represented the weeks, months, years and lunar, solar, Venus cycles, etc.; This is what that investment expressed in the count of days should have produced. But trying that would take us too far and we leave it for another opportunity.

APPENDIX

REDISCOVERY OF THE PRE-COLUMBIAN ASTRONOMY

After finishing this work, the author dedicated himself intensely to the preparation of another extensive book on Science in the Civilizations of Tiahuanaco and Inca, which is an extraordinary expansion of what is discussed here in Chapter VI, part 5. °.

Naturally, by dedicating such extensive effort to a special topic, apparently so narrow in its limits, a series of new contributions have been produced during its elaboration, on what has been said here, which in turn have provoked a series of new discoveries. , some of which did not even appear in the aforementioned pages of this work. By the way, they do not contradict what was said, but rather expand it enormously.

The first of them is that there has been a complete interpretation of the astronomical measurements that were carried out in the back part of the Kalasasaya of Tianuanaco, the so-called Pared Balconera by Posnansky, from which results, we believe, the first astro observatory. -pre-Columbian nomical, and perhaps of the entire world, which comes to be studied in such breadth.

As we will see immediately, the most surprising thing that resulted from this has been the relationship of half-month measurements, which completely correspond to what is currently used in the measurement of solar hours in the measurement of the terrestrial circle, and its immediate relationship with traditional astrological knowledge

THE.

The second series of discoveries refer to the Inca civilization, and are topics that we have not even briefly discussed before. It is that the entire social organization of Cuzco was based on the calendar, a calendar of 12 fixed months of 30 days, beginning at night between May 2-3, measured not on the points on the horizon as we had assumed until now, but

about the daily circle of the Sun in its apparent circulation through the sky around the Earth; In this, periods of weeks of 10 days had to be measured, with fixed months of 30 days, and undoubtedly each day and its subdivisions in hours and minutes. We assume months corresponding to hours, that is, 12 hours (Sumerian type), and each of them subdivided into 30 minutes, corresponding to days, that is, our 4 minutes. In total, 360 days and minutes.

Two fundamental facts are especially important in this: a beginning at the beginning of May means an astrological relationship with the zodiacal sign of Taurus, that is, the first relationship of origin of this type of calendar has to go back to a very ancient time in Mesopotamia. , even prior to the year 2000 BC. And, with that recognition, the second of the aforementioned events occurs next; a true avalanche of extraordinary relationships with our Astrology, in the times of its historical origins.

Naturally, the following had to happen: American astrological science (as Astronomy was called in ancient times) would have had its first origin on the indicated date, but many new elements were later added to it, which culminates -ron finally in the arrival of the leap count, which we know occurred in 238 BC. C. in Egypt. By then the knowledge of our current zodiac and its beginning in Aries was complete; The first thing was accepted, that is, the leap count (and no doubt many other things), but this did not alter the fact that the count continued to begin in Taurus. And that fundamental account, probably slightly

These alterations are also found in Mesoamerica, first of all in the Mayan civilization.

It would be important to have some information here

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GENERAL PLAN OF THE KALASASAYA of Tiahuanaco, according to Posnansky. Below: the Grand Staircase that

Balcony, to the west. The angles that mark the solar measurements according to measurements of the amplitude of solar motion, somewhat beyond the extreme pillars of

nodes of the Moon that is, the Head and Tail of the Dragon.

about the astrological interpretations that were made in ancient times in the Andean zone, but little less than nothing seems to have reached us; But there is no need to despair, its remains are abundant and in use among current indigenous people. For Mesoamerica we find more news, and even astrological details.

precise logics, in the monumental work of Fray Bernardino de Sahagún, History of the Things of New Spain.

In any case, one thing is certain: the American astrological interpretation presents the most direct survival that we know of ancient astrology, with its beginning in Taurus, that is, the one prior to its new development with a beginning in Aries. This takes the earliest antiquity of American astrology to a more remote date than would be commonly thought, and forces the conception of the existence of corporations of astrologers that maintained this knowledge for no less than three millennia.

children And in this, in the city of La Paz, Bolivia, Dr. Gregorio Loza Balsa even tells us its current existence.

Astrology in the Tiahuanaco civilization

We have already presented the Egyptian-type calendars after the Decree of Canopus, that is, with a leap account, so it is not necessary to insist on it; likewise the

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Posnansky's interpretation of the astronomical function of the building called Kalasasaya, where the amplitude of the sun's movements on the horizon would be measured, both at its rising and at its setting, the latter on the Balcony Wall so called by Posnansky .

What we have discovered about Tiahuanaco astronomy refers to this wall, which Posnansky interpreted incompletely and with a small error, which prevented him from understanding the entire set, even though his interpretative proposal was basically exact.

We will abbreviate: this wall (today rebuilt) measures nearly 60 meters long and is made up of eleven large pillars with a quadrangular section, some of which go beyond the twenty tons of weight; One is missing, which was moved a few hundred meters away in colonial times. The wall continues a few meters after each of the end pillars, and then turns to join the original Kalasasaya wall (see illustration). Posnansky assumed that from a viewing point located near the center of the Kalasasaya, this wall was looked at at the time of sunset, and that the Equinoxes were marked in its center and the Solstices were marked on the pillars at the ends. .

We also believed that, but in that case the intermediate pillars did not mean

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THE BALCONY WALL OF KALASASAYA, as it was before its current reconstruction: with a p
According to Posnansky regarding the pillars and their distance measurements. According to us, the months, corresponding to our time zones; between pillar and pillar the sun sets
indicated are averages that must be verified in the field, with daily photographs, procedures

which must be after the date of the two equinoxes.

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MAP OF CUZCO WITH THE DISTRIBUTION OF THE MONTHS in a zodiacal circle; The year began in the oldest Inca, and apparently on October 30 in a later reform. On the sides, they mediate the movements of the Sun. In the months of June, July and August, the two landmarks ind
As can be seen, they are not located within the possible solar movements, so they have to

graphic.

nothing, and it occurred to us that yes, they had to mean something, and we carried out a series of calculations, as Posnansky had done, with which we obtained nothing; Then we made the same calculations from the central pillar, which without any possible discussion measured the Equinoxes since the Sun set on it on those dates. In both cases there were excess or missing pillars.

Our discovery was made when we found that counting like this, starting from the central pillar and counting two pillars per month, one pillar was missing at each end. We made a drawing putting the months into fortnights, and we have assumed that at the ends there would possibly be a statue embedded in the upper part of the wall, equivalent to the Bugles of the Puerta del Sol. Several statues that could have been used for this are They are located a kilometer away, in the place where the remains of other large constructions exist called Pumapuncu. These statues are called Chachapuma (cougar man), and they have a severed head in one hand and an ax in the other, at the same time.

time his head is a puma mask.
The Buglers have a severed head in their hand. The wall continues a little further from where those statues should have been, and that is important, as we will see.

With this the discovery was complete, although many studies must now be carried out in the field to settle the accounts.

The result is:

That on that wall not only the Solstitices and Equinoxes, but also the months by fortnights and even day by day the exact place where the Sun sets on the horizon, looking from the point of view, which has to be somewhat further back than where Posnansky assumed.

We reproduce that in a suitable drawing; The distance between pillar and pillar is four and eighty meters, so that thirty-two centimeters on that wall correspond to each day, to the position of each day when it was set. Naturally now we have to go there, and try to adjust things more, starting by trying to locate where the final five days were counted and the

leap year Also, 32 centimeters are not exact for every day of the year, but vary a little with the seasons. So we are just at the beginning of a great discovery, which must now be completed in detail.

It is now unnecessary to continue with technical details, although another very important one still needs to be presented: at the ends of the wall, after the Chachapumas that would represent the solstices, there remains a space as we said; Its distance corresponds to the greatest amplitude of the lunar movement over the solar one, which is

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It occurs every eighteen years and a few days, that is, the commonly called Babylonian Saros cycle, the knowledge of which is essential to predict eclipses.

We will now see the astronomical results.

astrological explanations of what has been said: firstly, a highly developed astronomy undoubtedly appears, not imagined until now for the

Pre-Columbian America; the count for fifteen nas or half-months means a subdivision of the day into 24 hours, of a completely Egyptian type (the Sumerian system was 12 hours, double ours), and the knowledge and

ON

MODEL OF THE POSSIBLE SOLAR STUDIES IN CUZCO, according to the possible interpretation

be double, they have been represented as simple): from the central point of view, both in the n

would measure the solar movements (and the nodes of the Moon) at their maximum extremes in the s month and possibly day by day. No pillar can be beyond where the

ON

MODEL OF THE LOCATION OF THE PILLARS IN CUZCO, according to Father Cobo. As can be seen, the three corresponding to the months of June (Solstice, it expressly says so), July and August, s solar movements on the horizon, so they have to be projected from the middle

intermediate every 30 degrees.

measurement of solar hours, which is translated today into our time zones with an extension of 15° each.

The use of all this in Astrology, both ancient and current, is well known, since the entire astrological system is based on the 24 hours of the day and the position of the Sun on each of the days of the year. Same with the others

stars, and with the extreme position of the nodes of the Moon, that is, the Head and Tail of the Dragon, whose importance is such for those who know astrology that its value cannot be exaggerated.

It is now clear that the existing calendrical signs in Puerta del Sol, the form of their distribution, etc., have been elaborated.

thanks to astronomical observations made on the Balcony Wall that we treated.

The Inca Calendar and Astrology

We already said something on the subject of the Inca calendar and astronomy, but now the discoveries have multiplied.

There is, in the chroniclers, a very incomplete series of information about the existence

of pillars in the surroundings of Cusco, in which, when viewed from the central plaza or in front of the Temple of the Sun, they indicated the corresponding month of the year, although most of this information refers only to two pillars, sometimes double) , which would mark the initial moments of sowing, at the end of the months of July and August. Their situation was towards the NW of Cuzco.

We have to overcome the details; The most valuable information in this regard is found in the work of Father Bernabé Cobo, which reproduces a work by Lic. Polo es Ondegardo, and which we believe mixed with information from PC Molina, the Cuzqueño. It is about the relationship of the ceques and huacas of Cuzco, that is, the distribution of the places where religious ceremonies were carried out.

The relationship is complicated and has occupied numerous researchers, who dedicated a lot of time to its study, apparently without great positive results. The reason is that this relationship is extremely complex, and even incoherent with each other, due to its contradictions.

Furthermore, it is evident that it is not complete, that is, in our impression, that the author, Cobo, copied unfinished manuscript materials from both Polo and Molina, trying to coordinate them, something he did not completely achieve.

The summary is the following: from the central plaza in Usnu, or from the front of the Temple of the Sun, a series of lines called ceque came out, in each of which there was a series of numbers.

varied group of huacas, that is, places of worship. Clearly, each huaca corresponded to a day of the year, but it happens that the huacas described are only 332 (apparently only 328). The number of ceque is 41, and they are distributed in the various four suyus.

To Chinchaysuyu correspond nine cekes, to Antisuyu and Collasuyn equally nine cekes each, but it happens that Cuntisuyu has 14 cekes. This latter abnormality has baffled all researchers.

For us, all the suyus had only nine ceque, the abnormality of the 14 ceque of Cuntisuyu would be the result of an error by the chronicler: there are nine ceque plus five; We interpret that those last ceque were not such, but that they were erroneously counted as such, and it also happens that one of them was double.

Each ceque would represent a week of 10 days, we interpret, and in each suyu there would be three months of thirty days; In Cuntisuyu the final five days of the year and the leap day would be counted, and that was erroneously counted as a feeling.

two other five ceque. The final result is 12 months and 365 days in the year, with the leap account, marked on the double ceque.

There were 10 ayuus (clans or gens) of royal origin, descendants of an Inca, and two non-royal, commoners, each of whom held the festivals corresponding to a month, and corresponding days. This is clearly said by more than one chronicler. That is, the entire social organization of Cuzco simply copied the calendar or statue organized on it.

The same thing happens with the 12 tribes of Israel, in the biblical descriptions, where, although it is not said, their distribution on the horizon corresponds to the different months. And also in ancient Attica, where the nation was subdivided into four tribes, each tribe into three phratries, and each phratry into 30 gens. They are the four seasons of the year, the twelve months and the three hundred and sixty days.

It is important to go back to the calendar; In the list of the Cobo ceque there are three double groups of astronomical pillars. The first of them located towards the North, slightly towards the East, is said to have marked the Winter Solstice; then two more towards the NW, about 30° apart, in which it is indicated that the sowing began.

In the position in which Cobo places these pillars, or double pillars, none of them can coincide with the position of the Sun on the horizon at setting, since they are further north of the movements of the Sun towards the western horizon.

Consequently they are projected, the problem was to find out what kind of projection it was. As for its relationship with the months, they undoubtedly marked the dates of June 21, July 21 and August 20, according to the fixed months of 30 days.

The problem in this was to find out what kind of projection had been used in what was said, and that was insoluble for us for a long time; As for the other authors who dealt with this, they did not even realize that these points were projected.

The problem, once solved, is incredibly simple, and at the same time it shows us in all its breadth the degree of development of pre-Columbian indigenous astronomy. In these projections, the position of the Sun on the horizon, at its rising or setting, was not taken into account, but rather the position of the Sun in its apparent circulation around the Earth was directly measured, so that the position of the Sun at Zenith on June 21, was projected towards the North, and consequently, at 30° distance, the months of July and August were located above the horizon.

to; September, on the western horizon, marked the Spring Equinox, etc. Our illustration makes this clearer than any continued description.

The agricultural calendar of the current indigenous people of Bolivia and southern Peru begins at midnight on May 2-3, and its opposite is October 30, the day of the first passage of the Sun through the Zenith of Cuzco. Again we refer to the illustration. The following dates are now terribly important: in the folklore of England, France, etc., there are two traditional dates of agricultural celebrations: they are May 2 and October 30 (which are called Beltain and Sanhaim, names clearly of Phoenician origin), and which coincide with the dates we have just seen. With this, the extra-American origin of all this is manifest.

It would rather be Canaanite, that is, from the Phoenicians of the middle of the second millennium BC.

For the rest, Cyprus with its dominant Mycenaean and contemporary Greek and Phoenician survivals, seems to be the source of the clearly orientalizing culture of the coasts of Ecuador, and its immediate derivative the Mochica I culture of Piura. Lambayeque has the same relationship, although it is different, even more Cypriot in some features. Vicus seems more Persian in his bronze weapons, but we must not forget that at the time we are dealing with Cyprus and Phenicia were under Persian rule. A valuable feature that shows this relationship is that of orange ceramics, of Creto-Mycenaean origin, but which became typical Phoenician between the 9th and 7th centuries BC. C.; It is classic from Lambayeque and the Mochica 1, while it reaches the Argentine NW with the Draconian culture. It also spread sporadically throughout Mesoamerica, reaching the initial phases of the Aztec culture.

At the same time, the beginning of the Inca calendar in the 11th-12th degrees of the Taurus constellation is undoubtedly, and this indicates the astrological relationships of what we are dealing with.

Current chroniclers and authors have tried to relate the beginning of the Inca year with a solstice, rarely with an equinox, assuming that the Incas' knowledge of these astronomical facts required this; but we know these phenomena well and our calendar has no relation to them. The same would have happened with the

Incas. No people in the world have attempted to begin their calendrical relationship in

strict accordance with those astronomical facts.

Many of the chroniclers, starting with Huama-n Poma de Ayala, refer to the existence of astrologers among the Incas, whom they accompanied on their war expeditions, etc., and also intervened in their daily lives.

Unfortunately they do not give us more information about their astrological procedures and their results, but for Mexico, as we have already said, Fray Bernardino de Sahagún provides valuable information and we must refer to him. Suffice it to say that our classic astrological representation of a human body with Aries in the head, etc., has its corresponding representation in several Mexican Codes, with the natural variations that must have occurred.

The Aquarius sign of a human character with a pitcher in his hand is represented in a Mayan Codex (the character is female), and the same in Garcilaso's stanzas about Sumac Nusta: “Beautiful princess, your beloved brother, the pitcher that possessed, he broke it,” so that the rains could occur. With this, the relationship between American Astrology and that of the old world could not be more evident.

Both in the list of the ceques and huacas of Cuzco, and in the Balcony Wall of the Kalasasaya of Tiahuanaco, we find the account of the year day by day, measured astronomically. But there would be an important difference in this: there is no doubt that the day is counted or divided into 24 hours in the civilization of Tiahua-naco, both in the Puerta del Sol and in the aforementioned wall, but in the Inca accounts only 12 hours appear. , double than ours, and its subdivision is made up of 30 day-minutes, in which it turns out that the minutes are four times longer than ours and correspond to the duration of a day. Furthermore, the Inca months were counted month overdue, not expiring as ours. The fact that dominant Egyptian influences have existed in Tiahuanaco, and among the Sumerian Incas, is evident. We assume that Sumerian influences are older in their first origin, as occurs in Mesoamerica, but then they had a new dominant development with the Incas.

It also seems to us, to conclude, that the main reason for the dissemination of this knowledge from the Old World was its astrological application, and that in this the basic astronomical knowledge preserved, and even developed further later, were those that They could be used in Astrology, as a center for their active application.

LATEST DISCOVERIES

During the printing of this work, the author has continued the investigation of the topics discussed in it and, as a natural consequence, a series of new and important discoveries have been produced, which are naturally expansions of the topics discussed. The following facts can be noted as the most important:

1.—In terms of ancient maps with the representation of America, there is the reconstruction of a map three centuries prior to that of Ptolemy, whose lost original would have been made by Hipparchus, where America is clearly represented, although to see this clearly there is We must first make the following interpretation: the river supposed to be the Ganges represented there is not the Ganges but the Hoang-Ho of China; In front of it, at a distance similar to that indicated by Mariono de Tiro, there is a continental extension that runs from the North of Asia towards the South and is America. This error about rivers is continued in the maps of Eratosthenes, Strabo and Ptolemy. The supposed mythical islands of Crisé and Argira would be America, and particularly Crisé would correspond to Cattigara. Ptolemy merges these islands with the coasts of Indochina on the Bay of Bengal.

2.—In December 1978, the author obtained the complete astronomical interpretation of the great pillars that make up the west wall of Kalasasaya and Tiahuanaco, and there are eleven of them. It is measured there, as in the front of that building, the duration of the solar year, in its Solstices and Equinoxes, and, together, in slightly greater amplitude, the maximum movements of the Moon in a cycle of 18 years, that is the Saros of the Babylonians. The distance between pillar and pillar measures fortnights of days, that is, 15 degrees, which correspond to our 24 celestial zones.

and schedules, something else indicated by Hua-man Poma and not noticed before. The exact observation of any day of the year can be done today on any day of the year. The calendar, in its entirety, is the one already mentioned, of the Egyptian type, of the Puerta del Sol, which would have been developed as a result of the observations made there.

3.—Although the topic has not been addressed in the present work, the results of the comparative linguistic study, carried out jointly, have been greatly expanded, and the result is that dozens of American languages would have arrived on this continent through the oceanic way, in addition to other minor influences of words in vocabularies. Provisionally, the following sequence can still be noted:

(a) Languages of Asian type, suffixes, which in America would include especially Quichua, Aymara, Araucano, Tarasco, etc.

(b) Austroasiatic languages, in transit to the Austronesians, prefixed, in America represented especially by the Mayaquiche, Chibchas, Arawak, Caribbean, Guarani, Tupi, etc. languages.

(c) Languages of Siamese or Thai type, of the type originating in Southern China, anterior to their migration to the present Thailand. Up to the moment, important words in the vocabulary-river of various Mesoamerican and Andean languages.

d) Abundant words of origin in the Semitic and even Indo-European languages (Greek and Persian especially, also Hittites?), which are found in the same regions mentioned above.

CONCLUSIONS

The present volume of our work, America in World Prehistory, deals especially with the origin of indigenous civilizations in their last Formative period, generally assumed to be of local development, but which we maintain has originated thanks to a series of migrations and transpacific trade relations, derived from the era of maritime expansion that produced the so-called Orientalizing Period in the ancient Mediterranean. The same expansion, through the maritime routes of the Persian Gulf and the Red Sea, would have reached Indochina-Indonesia and, from there, to the American coasts of the Pacific very shortly after the expansion in the Mediterranean occurred.

Comparing the American civilizations, from that time until the time of Christ, with all the civilizations of the Old World during the same period may seem exaggerated, but the fact is that all of them were already in relationship with each other, because to the developed navigation of that time, and objects from the Mediterranean, Egypt, Persia, India and China, continually arrived in exchange to Indonesia and, from there, reached American lands.

The same thing happens in our current civilization, which has taken cultural traits from China, India, etc., and, at the same time, preserves innumerable elements from the ancient Mesopotamian and Egyptian civilizations of various times, Greek, Hebrew, Roman, etc Nothing remains isolated in human culture, when it has time to spread.

Summarizing what has been said, and to say in the following volumes, we express that America was populated at the beginning by migrations from Asia through the Bering Strait, the oldest of which correspond to well over 50,000 years, at the same time its bearers had

a primitive Mousterian type culture from the beginning of the Middle Paleolithic. Then several other migrations passed through there.

Through the oceanic, transpacific route, especially from Indonesia, other relations took place, most of them commercial, but also true migrations of peoples, from a little before 3,000 BC. C. Those that concern us in the present volume took place around the middle of the last millennium before the Era, and a little later, one or two centuries BC. C., a scientific mission of Hellenistic origin would have traveled along the Pacific American coasts, bringing here the most developed elements of high indigenous cultures, especially in Astronomy and the Calendar.

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Our interpretive position is ultra-diffusionist. Previous authors who have addressed the problem of transpacific relations have generally been what we call timid diffusionists. The difference is found in

that almost all of them have accepted the existence of convergent inventions, as have the supporters of indigenous invention, that is, of the independent development of indigenous civilizations. We deny the possibility of convergent inventions, maintaining a single origin for all of them; We also differentiate them from discoveries and applications of knowledge. To make an invention there must necessarily be antecedents, and this is lacking in America in a large number of cultural traits.

them. Furthermore, the belief in convergent inventions is a creationist philosophical idea, never proven, but disguised as evolutionism by the use of words typical of this interpretation. For us, each new invention is comparable to what happens with biological facts when a new invention appears.

species: it cannot exist except as a derivative of another, and each of them has a unique origin that spread later.

All our interpretation is strictly subject to the facts resulting from what we have just said. One of the important facts that derive from this is that every invention, when it spreads to more primitive peoples, generally becomes poorer. Another fundamental thing is that most of the developed inventions that appear in America do not have their necessary antecedents in our country.

continent, especially copies of metal pieces in ceramics, etc.

In the previous interpretations, we have worked mainly in two directions, regarding the origin of the high American cultures: first, with the idea of autochthonous development in the site: second, with the interpretation of the existence of some trans-pacific relations with Oceania, China and India at most. In our view, in the first of this type of interpretations we have worked with ideas and classifications provided with a key, just as in the natural sciences before the triumph of truly ideas.

evolutionists, such as plants, using a classification key. The same can be said of the interpretations applied to indigenous cultures in the pre-agricultural, formative, classical and militaristic periods.

The authors we call "timid" diffusionists did not try to change that, but rather to add to the previous type of Image of the World the interpretative idea that some elements of high American cultures had arrived here thanks to transpacific navigation, integrating into in situ development, expressed by the authors discussed above. In other words, the authors in favor of general development "on site" dedicated themselves to dealing especially with local microproblems, falsifying them, and the "timid" diffusionists faced some microproblems about the external origin of American civilizations. .

* * *

With our interpretation, the entire panorama of world prehistory has to change, not just that of American prehistory. It is something similar to what happened when they had to change all the classifications and the idea of evolution was introduced in the biological sciences. Before, living beings had no relationship of origin among themselves, since they had been created independently; with the interpretation

evolutionary theory, all of them were linked in origin, including man, and no living form could exist without having its necessary ancestor forms. That idea was not applied to the facts of human culture (or rather, it was, but in a falsified form, only with words), and hence, the maintenance until now of creationist ideas in the development of culture.

In our interpretation, as in evolutionary biology, all the features of human culture are linked to each other, due to their necessary antecedents, and also to the differentiation (still imperfect, by the way) between what is an invention, a discovery and application of knowledge, with its necessary background, which can be very different in each case. In this way, each of the true inventions that appear in the world, anywhere in the world

world, they have to be related to each other by origin, and efforts must be made to find that first place of origin and then the process of its diffusion. In this way, the most developed inventions of high American cultures (and their knowledge) remain uninterruptedly linked to the process of development, and even for the most part to fully historical periods, that occurred in the Old World.

The main problem with the above is the undisputed existence of highly developed maritime navigation since before 4,000 BC. C. in South Asia, since the maritime development of the ancient Mediterranean would be nothing more than a lateral expansion; On this topic, and as far as we are concerned for the moment, we have dealt especially with the discovery that we have made about the presence of the coasts of the American Pacific on Roman maps from shortly after the Era, as well as the appearance of those same coasts on maps after the discovery of America, copied from a lost Javanese map, being places that no European had yet visited.

Ptolemy's world map places us in a time later than the one in which we deal with inter-pacific relations but, at the same time, it is the direct continuation of the knowledge of those relations, already impoverished at that time, at least as regards Ptolemy's Alexandrian geographical knowledge.

The Javanese map and its partial copies indicate that relations with America continue

They were contemporaneous with European geographical discoveries, from Indonesia, and also from central and southern China, reports that Marco Polo gives us.

Regarding America, and towards the middle of the last millennium before the Era, we have a series of relationships, especially with the coasts of Ecuador, northern Peru and Mesoamerica, which speak directly of trans-pacific migrations. And then the references, which we think

There is no doubt that a scientific mission of Hellenistic origin traveled along the American coasts of the Pacific, from Mexico to Peru, leaving here the latest astronomical and calendrical scientific knowledge existing in the Old World around the 2nd century BC. C. At first, we assumed that this scientific mission would have to be of Alexandrian origin, but later we were inclined to think that its origin would be in Seleucid Persia. The proof of its existence is found not only in the remains of the Aztec Saga transmitted by Sahagún, but rather, and especially, in the very high development of astronomical and calendrical knowledge that at that time appeared in pre-Columbian America. , where the calendar of the ancient Mayan civilization was superior even to ours today, this being a normally recognized fact.

* * *

It is unnecessary to insist on our new interpretation of the Aztec calendar and the geocentric representation of the Universe expressed in it, as well as on the translation of the Tiahuanaco calendars and the developed Inca astronomy, and what was discussed at the end of the last chapter, on the Elements, the Ages of the World, the Cardinal Colors, etc.; Within the last mentioned, the colors and their points of orientation, their last two successive positions, are presented in the same way in India (although we believe it to be of Persian origin) and among the Mayans and Aztecs. Also the inverted count of the days in the Aztec calendar (whose origin seems to be found directly in the doctrines of Zoroaster) which, once understood, allows us to make a series of immediate relationships of the animal figures represented there with the entire Old World, in a time immediately prior to the latest trans-pacific influences.

If we try to search in the Old World of

'where most of the elements come from

pre-Columbian America, our opinion today is directed directly towards the Persian Gulf, origin of the Sumerian and Elamite civilizations, and, for the time that now concerns us,

pa, to the end of the Assyrian civilization and the beginning of the Persian one; We have presented a comparative list of American cultural elements with those of the orientalizing period of the ancient Mediterranean, but those same features must have been present at the same time in Mesopotamia and Persia, so that more than one could have arrived from there, brought by Phoenician traders. .

Others, even more important, have an immediate relationship with the Mediterranean, even with Minoan Crete, so that the routes of the Red Sea and the Persian Gulf must have been sources of contemporary navigation, Phoenician and Corinthian and, later, Hellenistic.

* * *

Finally, we will summarize a point that refers to the succession of trans-Pacific relations, both commercial and immigration.

because:

I. From a little before 3,000 BC. C. there are, on the coasts of Ecuador and possibly on the western coasts of Mexico, relations with Indonesia which, in turn, was receiving cultural features from the beginning of the Bronze Age of Sumeria, India and Indochina. The American people there were still very primitive, so they only adopted a few of those foreign elements.

II. Since at least 1,800 BC. C., cultural features of Egyptian and Eastern Mediterranean origin appear on the coasts of Ecuador and northern Peru, along with others from Mesopotamia, Elam and India, which already provide highly developed features; The same must have happened in western Mexico, still little studied. The process intensifies around 1,500 BC. C., with the appearance of the first features

Olmecs, Chorrera and Chavinoids. A period of time follows and then, between 1,000 and 700 BC. C., new and intense influences from the same origin appear in the aforementioned cultures.

III. After another interval of time, around 500 BC. C., there are new and intense influences, including migrations, both in Mesoamerica and on the Peruvian-Ecuadorian coasts, of which there are even historical traditions left, which form the American Upper Pre-classic or Upper Formative; Metallurgy does not reach Mesoamerica then, but there are many copies of metallic objects in other materials; On the other hand, metallurgy reaches the coasts of Ecuador fully developed and, from there, goes to those of northern Peru.

Intensive appearance of orientalizing and Persian features, possibly spread by Phoenicians and Corinthian Greeks. At the end of this period the first Hindu influences occurred and

Chinese in America, the first of which are found especially among the Olmecs and, later, among the Mayans.

IV. One or two centuries BC. C., the Hellenistic scientific mission had to travel the American coasts, leaving, both in Mesoamerica and on the coasts of the Andean zone, the most developed knowledge about Astronomy and Calendar of the time, the geocentric interpretation of the Universe, the leap count, etc., things that did not yet exist in the previous period.

V. Around 500 AD, an American cultural ebb, of Mayan origin in the Old Empire, reached Indochina, bringing there especially stone architecture, with the false arch, the trifoliate, the knowledge of Zero, etc. ., cultural traits that spread through the

India and later arrive in Europe. The trifoliate arches of Gothic art would come from this ebb, as well as the development of mathematics with the knowledge of zero, two cultural traits brought to Europe by the Arab civilization.

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